



# HOKKAIDO UNIVERSITY

Title	FLORA OF HOKKAIDO AND SAGHALIEN III : MONOCOTYLEDONEAE ARACEAE TO ORCHIDACEAE
Author(s)	MIYABE, Kingo; KUDO, Yushun
Citation	Journal of the Faculty of Agriculture, Hokkaido Imperial University, 26(3), 279-387
Issue Date	1932-03-15
Doc URL	<a href="https://hdl.handle.net/2115/12656">https://hdl.handle.net/2115/12656</a>
Type	departmental bulletin paper
File Information	26(3)_p279-387.pdf



ARACEÆ

*Acorus* L.

536. **Acorus Calamus** L. Sp. Pl. ed. 1, 324; Engl. in DC. Monogr. Phan. II. 216, et in Pfl.-reich. IV. 23A: 309.

var. **vulgaris** L. Sp. Pl. ed. 1, 324; Engl. l. c. 309.

*Acorus calamus* "L." Jacq. Enum. 60; Willd. Sp. II. 199; Kunth, Enum. Pl. III. 87; Ledeb. Fl. Ross. IV. 13; Trautv. et Mey. Fl. Ochot. 89; Regel. Tent. Fl. Ussur. 138; Britt. & Br. III. Fl. I. 364; Korsh. Pl. Amur. 392; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 365.

*Hakusho, Ayamegusa, Shobu*, Iwasaki, Honzo-zufu XXX. 13-14.

NOM. JAP. *Shobu*.

NOM. AINU. *Surugu-kusuri*.

HAB. *Yezo*. Iburi, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Korea, Manchuria, Amur, Ussuri, Ochotsk, Eastern Siberia, Himalaya, Malay, Europe and Atlantic North America.

*Lysichiton* Schott

537. **Lysichiton camtschaticense** Schott, in Oesterr. Bot. Wochenbl. III. 62; Maxim. Prim. Fl. Amur. 266; Miq. Prol. Fl. Jap. 134; Fr. Schm. Fl. Sachal. 178; Fr. et Sav. Enum. Pl. Jap. II. 9; Engl. in DC. Mon. Phan. II. 210, et in Engl. u. Pr. Nat. Pfl.-fam. II. 3: 122; Howell, Fl. N. W. Am. I. 667; Krause, in Engl. Pfl.-reich. IV. 23B. 148; Hemsl. Bot. Mag. t.7937; Matsum. Ind. Pl. Jap. II. 1: 172; Takeda, Fl. Shikotan, 492; Miyabe & Miyake, Fl. Saghal. 501; Kudo, Contr. Fl. N. Saghal. 26 et Rep. Veg. N. Saghal. 76; Mak. & Nem. Fl. Jap. 2. ed. 1505; Hult. Fl. Kamtch. I. 214; Kom. Fl. Pen. Kamtsch. I. 272; Nakai, Veg. Mt. Apoi, 76; Tatewaki, Veg. Akan, 52.

*Dracontium camtschaticense* L. Sp. Pl. ed. 1, 968.

*Symplocarpus kamtschaticus* Bong. Végét. Sitcha, 168; Ledeb. Fl. Ross. IV. 12.

*Arctiodracon japonicum* A. Gray, in Mem. Am. Acad. 2 sér. VI. 408.

*Arctiodracon camtschaticum* A. Gray, l. c. 409.

*Lysichiton japonicum* Schott, ex Miq. Cat. Mus. Ludg. Bat. I. 96; Fr. et Sav. Enum. Pl. Jap. II. 9.

NOM. JAP. *Mizubasho*, *Bekonoshita*.

NOM. AINU. *Parakina*.

HAB. *Yezo*. Oshima, Hidaka, Ishikari, Kitami, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Paramushir.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Oha.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Amur, Ochotsk, Kamchatka, Aleutian Islands and Pacific North America.

### *Symplocarpus* Salisb.

**538. *Symplocarpus foetidus*** Salisb. in Nutt. Gen. 105; Hook. Bot. Mag. t. 3224; Kunth, Enum. Pl. III. 84; Maxim. Prim. Fl. Amur. 266; Miq. Prol. Fl. Jap. 134; Fr. Schm. Fl. Sachal. 178; Fr. et Sav. Enum. Pl. Jap. II. 9; Engl. in DC. Monogr. Phan. II. 212, et in Engl. u. Pr. Nat. Pfl.-fam. II. 3: 122, f. 79, a-c; Krause, in Engl. Pfl.-reich. IV. 23B. 151; Kom. Fl. Mansh. I. 413; Matsum. Ind. Pl. Jap. II. 1: 173; Koidz. Pl. Sachal. 30; Nakai, Fl. Korea. II. 272; Takeda, Fl. Shikotan, 492; Miyabe & Miyake, Fl. Saghal. 502; Kudo, Contr. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 77; Mak. & Nem. Fl. Jap. ed. 2. 1507; Tatewaki, Veg. Mt. Apoi, 71; Nakai, Veg. Mt. Apoi, 76.

*Dracontium foetidum* L. Sp. Pl. ed. 1, 667.

*Spathyema foetida* Raf. in N.Y. Med. Repos. II. Hex. X. 173.

NOM. JAP. *Zazenso*, *Darumaso*.

NOM. AINU. *Shikerebe-kina*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari, Rishiri.

*Kuriles*. Shikotan.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Amur, Ussuri, Ochotsk and North America.

*Calla* L.

**539. *Calla palustris*** L. Sp. Pl. ed. 1. 968; Kunth, Enum. Pl. III. 59; Ledeb. Fl. Ross. IV. 11; Maxim. Prim. Fl. Amur. 265; Fr. Schm. Fl. Sachal. 178; Engl. in DC. Monogr. Phan. II. 214; Britt. & Br. Ill. Fl. I. 363; Korsh. Pl. Amur. 392; Kom. Fl. Mansh. I. 413; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 367; Matsum. Ind. Pl. Jap. II. 1: 171; Koidz. Pl. Sachal. 30; Miyabe & Miyake, Fl. Saghal. 500; Printz, Veg. Sib. Mong. Front. 175; Hult. Fl. Kamtch. I. 215; Mak. & Nem. Fl. Jap. ed. 2. 1503; Kom. Fl. Pen. Kamtsch. I. 272.

NOM. JAP. *Mizu-zazen, Himekain, Mizu-imo.*

HAB. *Yezo.* Oshima, Iburi, Ishikari, Kushiro.

*Southern Saghalien.* Odomari, Toyohara, Shikka.

DISTRIB. Saghalien, Yezo, Manchuria, Amur, Ussuri, Ochotsk, Kamchatka, Siberia, Europe and North America.

*Arisaema* Martius

**540. *Arisaema Thunbergii*** Bl. in Rumphia I. 105; Kunth, Enum. Pl. III. 19; Miq. Prol. Fl. Jap. 133; Fr. et Sav. Enum. Pl. Jap. II. 4; Engl. in DC. Monogr. Phan. II. 546, et in Pfl.-reich. IV. 23F. 188; Makino, in Tokyo Bot. Mag. XI, (32); Matsum. Ind. Pl. Jap. II. 1: 171; Mak. & Nem. Fl. Jap. ed. 2. 1502; Nakai, in Tokyo Bot. Mag. XLIII. 525, 526, 566, et Veg. Mt. Apoi, 76; Tatewaki, Veg. Mt. Apoi, 71.

NOM. JAP. *Urashimaso.*

HAB. *Yezo.* Oshima, Hidaka.

DISTRIB. Yezo, Honshu, Shikoku and Kyushu.

**541. *Arisaema robustum*** Nakai, in Tokyo Bot. Mag. XLIII. 531, 568; Makino & Nemoto, Fl. Jap. ed. 2. 1501.

*Arisaema amurense*  $\beta$ . *robustum* Engl. in DC. Monogr. Phan. II. 550; Palib. Consp. Fl. Korea. III. 17; Engl. Pfl.-reich. IV. 23F. 204.

*Arisaema amurense* f. *integrifolium* Mak. in Tokyo Bot. Mag. XV. 132.

*Arisaema amurense*, Matsum. Ind. Pl. Jap. II. 1: 169, p. p.; Takeda, in Tokyo Bot. Mag. XXIV. 260; Makino & Nemoto, Fl. Jap. 1313, p. p.; Nakai, Veg. Kamikochi, prov. Shinano, 35, non Maxim.

NOM. JAP. *Hirohano-tennansho*.

HAB. *Yezo*. Ishikari, Iburi.

DISTRIB. *Yezo*, Honshu, Kyushu and Korea.

var. **sachalinense** Miyabe et Kudo, var nov.

Lamina pedati-7-secta.

*Arisaema amurense* Miyabe et Miyake, Fl. Saghal. 499, non Maxim.

NOM. JAP. *Karafuto-hirohatennansho*.

HAB. *Yezo*. Teshio.

*Southern Saghalien*. Mauka, Todomoshiri.

DISTRIB. Endemic.

**542. *Arisaema amplissimum*** Bl. in Rumphia I. 110; Kunth, Enum. Pl. III. 21; Miq. Prol. Fl. Jap. 134, 357; Fr. et Sav. Enum. Pl. Jap. II. 6; Engl. in DC. Monogr. Phan. II. 560; Nakai, in Tokyo Bot. Mag. XLII. 452, et XLIII. 525, 529, 572; Makino & Nemoto, Fl. Jap. ed. 2. 1496.

*Arisaema Takedai* Makino, in Tokyo Bot. Mag. XXIV. 73; Takeda, in Kew Bull. (1912) 216, in nota *Arisaema serratum* Schott; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 77, in Trans. Sapporo Nat. Hist. Soc. VI. 166; Engl. Pfl.-reich. IV. 23F, 207; Mak. & Nem. Fl. Jap. 1317.

NOM. JAP. *Oh-mamushigusa*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo* and Honshu.

**543. *Arisaema angustatum*** Fr. et Sav. Enum. Pl. Jap. II. 6, 507; Nakai, in Tokyo Bot. Mag. XLII. 452, et XLIII. 533, 570.

*Arisaema angustata* Engl. in DC. Monogr. Phan. II. 560.

*Arisaema serratum* f. b. *Blumei* Mak. in Tokyo Bot. Mag. XV. 129, p. p.; Matsum. Ind. Pl. Jap. II. 1: 171, p. p.

*Arisaema japonicum*. Takeda, in Kew Bull. (1912) 216, p. p., non Bl.

*Arisaema serratum* var. *Blumei*. Mak. apud Engl. Pfl.-reich. IV. 23F, 206, p. p.

var. **integrum** Nakai, in Tokyo Bot. Mag. XLII. 453, et XLIII. 534; Makino & Nemoto, Fl. Jap. ed. 2. 1497.

*Arisaema serratum* var. *angustifoliata* Miq. Cat. Mus. Lugd. Bat. 95, p.p.

NOM. JAP. *Hosoba-tennansho*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

var. **peninsulae** Nakai, var. nov., in litt.

*Arisaema peninsulae* Nakai, in Tokyo Bot. Mag. XLIII. 537, 570; Makino & Nemoto, Fl. Jap. ed. 2. 1500.

*Arisaema japonicum* Nakai, in Jour. Coll. Sci. Tokyo XXXI. 271, et Veg. Diamond Mts. 166; Takeda, in Kew Bull. (1912) 216, p.p., non Blume.

NOM. JAP. *Korai-tennansho*, *Yezo-tennansho*.

NOM. AINU. *Raurau*.

HAB. *Yezo*. Oshima, Shiribeshi, Hidaka, Ishikari, Teshio, Teuri, Kushiro.

*Kuriles*. Kunashiri, Etorofu.

DISTRIB. *Kuriles*, *Yezo*, Honshu, Quelpart and Korea.

f. **variegatum** (Nakai).

*Arisaema peninsulae* f. *variegatum* Nakai, l. c. 538.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo* and Korea.

**544. *Arisaema serratum*** Schott, in Schott et Endlich. Melet. Bot. 17; Blume, in Rumphia I. 107; Kunth, Enum. Pl. III. 19; Schott, Syn. Aroid. 29, et Prodr. Syst. Aroid. 41; Miq. Prol. Fl. Jap. 134; Fr. et Sav. Enum. Pl. Jap. II. 5.

*Arisaema serratum* Schott form. *Blumei* Mak. in Tokyo Bot. Mag. XV. 129, (pro parte et excl. syn. *A. latisectum* & *A. amplissimum*); Nakai, in Tokyo Bot. Mag. XLIII. 536; Mak. & Nem. Fl. Jap. ed. 2. 1501.

*Arisaema japonicum* Bl. in Rumphia I. 106, excl. syn.; Kunth, Enum. Pl. III. 19, excl. syn.; Schott, Syn. Aroid. 29, excl. syn., et Prodr. Syst. Aroid. 40, excl. syn.; Miq. Prol. Fl. Jap. 134, excl. var.; Engl. in DC. Monogr.

Phan. II. 549, excl. syn.; Fr. et Sav. Enum. Pl. Jap. II. 5, excl. syn. et var.; Takeda, in Kew Bull. (1912) 216, pro parte.

*Arisaema serratum* var. *Blumei* Mak. apud Engler, Pfl.-reich. IV. 23F, 206, p.p.

NOM. JAP. *Mamushiso*, *Mamushigusa*, *Hebinodaihachi*.

NOM. AINU. *Raurau*.

HAB. *Yezo*. Iburi.

*Kuriles*. Shikotan.

DISTRIB. Kuriles, Yezo, Honshu and Kyushu.

### *Pinellia* Tenore

**545. *Pinellia ternata*** Breitenb. in Bot. Zeit. XXXVII. 687, f. 1-4; Makino, in Tokyo Bot. Mag. XV. 135; Matsum. Ind. Pl. Jap. II. 1: 172; Nakai, Fl. Korea. II. 272; Engl. Pfl.-reich. IV. 23F, 222.

*Arum ternatum* Thunb. Fl. Jap. 233.

*Pinellia tuberifera* Tenore, Ind. Sem. Hort. Neapol. (1830) 91; Schott, Prodr. Aroid. 20; Miq. Prol. Fl. Jap. 133; Engl. in DC. Monogr. Phan. II. 566, et in Engl. Bot. Jahrb. VI. 52; Fr. et Sav. Enum. Pl. Jap. II. 3; Diels, Fl. C. China, 236; Palib. Consp. Fl. Korea. III. 17.

*Typhonium? tuberculigerum* Schott, in Ann. Mus. Lugd. Bat. I. 123; Miq. Prol. Fl. Jap. 134; Fr. et Sav. Enum. Pl. Jap. II. 7.

var. **vulgaris** Engl. Pfl.-reich. IV. 23F, 224.

forma **viridis** (Makino).

*Pinellia ternata* var. *viridis* Makino, in Journ. Jap. Bot. I. 26; Mak. & Nem. Fl. Jap. ed. 2. 1506.

NOM. JAP. *Karasubishaku*, *Hange*.

HAB. *Yezo*. Oshima, Iburi, Ishikari.

DISTRIB. Yezo, Honshu, Kyushu, Liukiu, Formosa, Korea and China.

### LEMNACEÆ

#### *Spirodela* Schleid.

**546. *Spirodela polyrhiza*** Schleid. in Linnaea. XIII. 392; Kunth, Enum. Pl. III. 7; Ledeb. Fl. Ross. IV. 18; Maxim. Prim. Fl. Amur. 266;

Rgl. Tent. Fl. Ussuri. 138; Fr. Schm. Fl. Sachal. 179; Fr. et Sav. Enum. Pl. Jap. II. 13; Makino, in Tokyo Bot. Mag. IX. 230; Hegelm. in Engl. Bot. Jahrb. XXI. 284; Britt. & Br. Ill. Fl. I. 365; Kom. Fl. Mansh. I. 416; Matsum. Ind. Pl. Jap. II. 1: 174; Hegi, Ill. Fl. Mittel-Europ. Fl. II. 140; Nakai, Fl. Korea II. 273; Miyabe & Miyake, Fl. Saghal. 504; Hult. Fl. Kamtch. I. 215; Kom. Fl. Pen. Kamtsch. I. 274; Mak. & Nem. Fl. Jap. ed. 2. 1508.

*Lemna polyrrhiza* L. Sp. Pl. ed. 1, 970; Hook. f. Fl. Brit. Ind. VI. 557; Forb. et Hemsl. Ind. Fl. Sin. III. 188.

NOM. JAP. *Ukikusa, Kagamigusa.*

HAB. *Yezo.* Oshima, Kushiro.

*Southern Saghalien.* Ushoro.

DISTRIB. Saghalien, Yezo, Honshu, Liukiu, Formosa, Korea, Manchuria, Ussuri, Amur, Kamtchatka, Siberia, India, Ceylon, Himalaya, China, Sumatra, Java, Africa, Madeira, Australia, America and Europe.

### *Lemna* L.

**547. *Lemna minor*** L. Sp. Pl. ed. 1, 970; Kunth, Enum. Pl. III. 4; Ledeb. Fl. Ross. IV. 16; Maxim. Prim. Fl. Amur. 266; Rgl. Tent. Fl. Ussuri. 138; Miq. Prol. Fl. Jap. 386; Fr. Schm. Fl. Sachal. 178; Fr. et Sav. Enum. Pl. Jap. II. 12; Korsh. Pl. Amur. 392; Hook. f. Fl. Brit. Ind. VI. 556; Makino, in Tokyo Bot. Mag. IX. 230; Hegelm. in Engl. Bot. Jahrb. XXI. 291; Britt. & Br. Ill. Fl. I. 366; Kom. Fl. Mansh. I. 416; Forb. et Hemsl. Ind. Fl. Sin. III. 188; Matsum. Ind. Pl. Jap. II. 1: 174; Nakai, Fl. Korea. II. 272; Miyabe & Miyake, Fl. Saghal. 503; Printz, Veg. Sib. Mong. Front. 175; Hult. Fl. Kamtch. I. 215; Kom. Fl. Pen. Kamtsch. I. 274; Mak. & Nem. Fl. Jap. ed. 2. 1508.

NOM. JAP. *Ko-ukikusa.*

HAB. *Yezo.* Ishikari, Kushiro.

*Southern Saghalien.* Odomari, Tomarioro.

DISTRIB. Saghalien, Yezo, Honshu, Korea, China, Manchuria, Amur, Ussuri, Kamtchatka, Siberia, Western Tibet, India, Java, Europe, Africa, Australia and North and South America.

**548. *Lemna trisulca*** L. Sp. ed. 1, 970; Kunth, Enum. Pl. III. 5; Ledeb. Fl. Ross. IV. 17; Maxim. Prim. Fl. Amur. 266; Rgl. Tent. Fl. Ussuri. 138; Fr. Schm. Fl. Sachal. 179; Fr. et Sav. Enum. Pl. Jap. II. 12; Korsh. Pl. Amur. 392; Hook. f. Fl. Brit. Ind. VI. 557; Makino, in Tokyo Bot. Mag. IX. 230; Kawakami, ibidem XII. (268); Hegelm. in Engl. Bot. Jahrb. XXI. 293; Britt. & Br. Ill. Fl. I. 366; Kom. Fl. Mansh. I. 417; Matsum. Ind. Pl. Jap. II. 1: 174; Takeda, in Tokyo Bot. Mag. XXIV. 180; Miyabe & Miyake, Fl. Saghal. 503; Kudo, Rep. Veg. N. Saghal. 77; Mak. & Nem. Fl. Jap. 1309; Hult. Fl. Kamtch. I. 216; Kom. Fl. Pen. Kamtsch. I. 273.

var. **sagittata** Makino, in Journ. Jap. Bot. III. 10; Mak. & Nem. Fl. Jap. ed. 2. 1508.

NOM. JAP. *Hinjimo, Sankakuna.*

HAB. *Yezo.* Kushiro, Nemuro.

*Southern Saghalien.* Ushoro, Shikka.

*Northern Saghalien.* Alexandrowsk.

DISTRIB. *sp.* Saghalien, Yezo, Honshu, Manchuria, Amur, Ussuri, Kamtchatka, Siberia, Bengal, Burma, Nepal, India, Caucasus, Europe, N. Africa, Australia and North America.

**549. *Lemna paucicostata*** Hegelm. Monogr. Lemn. 139, et in Engl. Bot. Jahrb. XXI. 294; Fr. et Sav. Enum. Pl. Jap. II. 12; Makino, in Tokyo Bot. Mag. IX. 230; Wright, in Jour. Linn. Soc. XXXVI. 188; Matsum. Ind. Pl. Jap. II. 1: 174; Mak. & Nem. Fl. Jap. ed. 2. 1508.

NOM. JAP. *Ao-ukikusa.*

HAB. *Yezo.* Oshima.

DISTRIB. *Yezo,* Honshu, Shikoku, Kyushu, Liukiu, Formosa, China, India, Malacca, Java, Africa, North and South America and Australia.

#### ERIOCAULACEÆ

##### *Eriocaulon* L.

**550. *Eriocaulon nipponicum*** Maxim. Diagn. Pl. Nov. Asia. VIII. 9; Ruhland, in Engl. Pfl.-reich. IV.30. 38; Mikano, in Tokyo Bot. Mag. VIII.

506; Wright, in Journ. Linn. Soc. XXXVI. 200; Matsum. Ind. Pl. Jap. II. 1: 176; Tatewaki, Veg. Mt. Apoi, 71, 83; Nakai, Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. ed. 2. 1513.

NOM. JAP. *Ito-inunohige*.

HAB. *Yezo*. Iburi, Hidaka.

DISTRIB. *Yezo*, Honshu, Kyushu and China.

**551. *Eriocaulon sikokianum*** Maxim. in Mél. Biol. XII. 16; Makino, in Tokyo Bot. Mag. IV. 174, et VIII. 506; Ruhland, in Engl. Pfl.-reich. IV.30. 92; Matsum. Ind. Pl. Jap. II. 1: 177; Nakai, in Tokyo Bot. Mag. XXV. (218); Mak. & Nem. Fl. Jap. ed. 2. 1515.

NOM. JAP. *Shiro-inunohige*, *O-inunohige*.

HAB. *Yezo*. Oshima, Iburi.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

**552. *Eriocaulon Miquelianum*** Koern. in Miq. Ann. Mus. Ludg. Bat. III. 162 et Prol. Fl. Jap. 326; Fr. et Sav. Enum. Pl. Jap. II. 99; Maxim. in Mél. Biol. XII. 17; Makino, in Tokyo Bot. Mag. IV. 174, et VIII. 506; Forb. et Hemsl. Ind. Fl. Sin. III. 200; Ruhlend, in Engl. Pfl.-reich. IV.30. 92, f. 10, p. p.; Matsum. Ind. Pl. Jap. II. 1: 176; Nakai, in Tokyo Bot. Mag. XXV. (218); Mak. & Nem. Fl. Jap. ed. 2. 1512.

NOM. JAP. *Inunohige*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and China.

**553. *Eriocaulon monococcon*** Nakai, in Matsum. Ic. Pl. Koishikav. II. 35, pl. 102; Mak. & Nem. Fl. Jap. ed. 2. 1512.

*Eriocaulon Miquelianum* Ruhland, in Engl. Pfl.-reich. IV.30. 92, non Koern. quoad pl. Horomui.

*Eriocaulon monococcon* Nakai, var. *latifolium* Nakai, l. c.

NOM. JAP. *Yezo-hoshikusa*.

HAB. *Yezo*. Ishikari.

DISTRIB. Endemic species.

**554. *Eriocaulon Buergerianum*** Koern. in Miq. Ann. Mus. Ludg. Batav. III. 163, et Prol. Fl. Jap. 327; Fr. et Sav. Enum. Pl. Jap. II. 100;

Maxim. Diagn. VIII. 20; Ruhland, in Engl. Pfl.-reich. IV.30. 94; Wright, in Journ. Linn. Soc. XXXVI. 198; Matsum. Ind. Pl. Jap. II. 1: 175; Mak. & Nem. Fl. Jap. ed 2. 1510.

NOM. JAP. *O-hoshikusa*.

HAB. *Yezo*. Oshima, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Liukiu and China.

**555. *Eriocaulon atrum*** Nakai, in Fedde, Repert. IX. 466, et in Tokyo Bot. Mag. XLII. 497, in nota *E. sachalinense* Miyabe et Nakai; Mak. & Nem. Fl. Jap. ed. 2. 1510.

NOM. JAP. *Kuro-inunohige*, *Kushiro-hoshikusa*.

HAB. *Yezo*. Kushiro, Hidaka, Iburi.

DISTRIB. *Yezo* and Honshu.

**556. *Eriocaulon sachalinense*** Miyabe et Nakai, in Tokyo Bot. Mag. XLII. 479, 497; Makino & Nemoto, Fl. Jap. ed. 2. 1514.

NOM. JAP. *Karafuto-hoshikusa*.

HAB. *Southern Saghalien*. Toyohara.

DISTRIB. Endemic.

var. **palleseus** Nakai, var. nov.

Bractea et flores pallescentes.

NOM. JAP. *Shiro-yezohoshikusa*.

HAB. *Yezo*. Iburi.

DISTRIB. Endemic.

#### COMMELINACEÆ

##### *Commelina* L.

**557. *Commelina communis*** L. Sp. Pl. ed. 1, 40; Thunb. Fl. Jap. 35; Kunth, Enum. Pl. IV. 36; Maxim. Prim. Fl. Amur. 290; Miq. Prol. Fl. Jap. 306; Rgl. Tent. Fl. Ussuri. 156; Clarke, in DC. Monogr. Phan. III. 170; Fr. et Sav. Enum. Pl. Jap. II. 93; Korsh. Pl. Amur. 404; Britt. & Br. III. Fl. I. 376; Palib. Consp. Fl. Korea. III. 15; Kom. Fl. Mansh. I. 420; Forb. et Hemsl. Ind. Fl. Sin. III. 155; Matsum. Ind. Pl. Jap. II. 1: 179; Nakai,

Fl. Korea. II. 264; Miyabe & Miyake, Fl. Saghal. 487; Mak. & Nem. Fl. Jap. ed. 2. 1518; Kom. Fl. Pen. Kamtsch. II. 111; Hult. Fl. Kamtch. IV. 244; Tatewaki, Veg. Akan, 52.

*Commelina polygama* Roth. Catal. Bot. I. 1; Kunth, Enum. Pl. IV. 37; Bunge, Enum. Pl. China Bor. n. 376.

*Commelina Willdenowii* Kunth, Enum. Pl. IV. 37.

NOM. JAP. *Tsuyukusa*, *Boshibana*, *Aobana*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Ishikari, Kushiro.

*Southern Saghalien*. Odomari.

DISTRIB. Saghalien, *Yezo*, Honshu, Shikoku, Kyushu, Liukiu, Korea, Manchuria, China, Ussuri, Amur, Kamtchatka, adventive or naturalized in Europe and North America.

### *Aneilema* L.

558. ***Aneilema Keisak*** Hassk. Comm. Ind. 32; Clarke, in DC. Monogr. Phan. III. 209; Franch. Pl. David. 310; Diels, Fl. C. China, 237; Kom. Fl. Mansh. I. 421; Forb. et Hemsl. Ind. Fl. Sin. III. 152; Matsum. Ind. Pl. Jap. II. 1: 178; Matsum. et Hayata, Enum. Pl. Formos. 447; Nakai, Fl. Korea. II. 265; Mak. & Nem. Fl. Jap. ed. 2. 1517.

*Aneilema oliganthum* Fr. et Sav. Enum. Pl. Jap. II. 94, 532.

NOM. JAP. *Ibokusa*.

HAB. *Yezo*. Oshima, Iburi, Ishikari.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Formosa, Korea, Manchuria and China.

### PONTEDERIACEÆ

#### *Monochoria* Presl.

559. ***Monochoria Korsakowii*** Rgl. et Maack, in Mém. Acad. Pétersb. IV. 155; Rgl. Tent. Fl. Ussuri. 155, *t.* 12, *f.* 1-7, et Gartenfl. (1862) 313, *t.* 374; Franch. Pl. David. 310; Forb. et Hemsl. Ind. Fl. Sin. III. 149; Matsum. Ind. Pl. Jap. II. 1: 181; Nakai, Fl. Korea. II. 263; Mak. & Nem. Fl. Jap. ed. 2. 1521.

*Monochoria vaginalis* var. *Korsakowii* Solms-Laubach, in DC. Monogr. Phanerog. IV. 525; Palib. Consp. Fl. Korea. III. 15.

*Monochoria vaginalis* Kom. Fl. Mansh. I. 422, non Presl.

NOM. JAP. *Mizu-aoi*.

HAB. *Yezo*. Oshima, Iburi.

DISTRIB. *Yezo*, Honshu, Kyushu, Liukiu, Korea, Manchuria, Ussuri, Mongolia and North China.

**560. *Monochoria vaginalis*** Presl, in Reliq. Haenk. II. 128; Kunth, Enum. Pl. IV. 134; Hook. f. Fl. Brit. Ind. VI. 363; Solms-Laubach, in DC. Monogr. Phan. IV. 524.

var. ***plantaginea*** Solms-Laubach, l. c.; Forb. et Hemsl. Ind. Fl. Sin. III. 150; Nakai, Fl. Korea. II. 264; Mak. & Nem. Fl. Jap. ed. 2. 1521.

*Monochoria plantaginea* Kunth, Enum. Pl. IV. 135; Miq. Prol. Fl. Jap. 307; Fr. et Sav. Enum. Pl. Jap. II. 95; Benth. Fl. Hongk. 375.

*Monochoria vaginalis* Presl var. *minor* Miq. Prol. Fl. Jap. 307.

NOM. JAP. *Mizunagi*, *Sasanagi*, *Konagi*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Liukiu, Formosa, Korea, Manchuria (?), China, Malay Archipelago and India.

## JUNCACEÆ

### *Luzula* L.

**561. *Luzula Jimboi*** Miyabe et Kudo, Mater. Fl. Hokkaido n. 4, in Trans. Sapporo Nat. Hist. Soc. V. 37; Mak. & Nem. Fl. Jap. ed. 2. 1528.—Pl. V.

Caules erecti vel basi breviter adscendentes, usque 20 cm. alti, in statu sicco irregulariter valliculati, basi superneque foliati. Folia basilaria saepius minora, laminis linearibus saepius 1–4 cm. rarius 10 cm. longis, saepius 2–3 mm. rarius 5 mm. latis, oribus longe ciliatis; caulina 2 vel 3, majora, laminis late linearibus, saepius 5 cm. longis, 6 mm. latis, margine plus-minus ciliatis, apice sensim vel abrupte longe acuminatis, canaliculatis, callosis, vaginis elongatis et arctatis, oribus longe ciliatis. Inflorescentia terminalis, composita, anthelata; rami erecti nec refracti, dichotomi. Bractea infima

erecta, frondosa, inflorescentiam subaequans; prophylla floris membranacea, late ovata, ciliata, mucronata, castanea, hyalino-marginata, flores ca. duplo breviores. Flores minores, 3.5 mm. longi; tepala lanceolata, subaequilonga, acuminata, medio dorsi castanea, hyalino-marginata. Stamina tepalis  $\frac{1}{3}$  breviora; antheræ lineares, filamenta subaequantés. Ovarium trigonanicum; stylus ovarium aequans; stigmata 3, longa. Fructus nobis ignotis.

NOM. JAP. *Jimbo*.

HAB. *Kuriles*. Etorofu, Ketoi, Matsuwa—The type, collected by Dr. K. Jimbo at Shibetoro in Etorofu, is preserved in the Herbarium of Hokkaido Imperial University, Sapporo.

DISTRIB. Endemic species.

This is a very striking species, having dichotomous branches of the inflorescence, small flowers and foliaceous stems.

**562. *Luzula japonica*** Buchenau, Monogr. Juncac. in Engl. Bot. Jahrb. XII. 82, et Juncac. in Engl. Pfl.-reich. IV.36. 46; Matsum. Ind. Pl. Jap. II. 1: 186; Mak. & Nem. Fl. Jap. ed. 2. 1528; Hult. Fl. Kamtch. I. 224.

*Juncodes japonicum* O. Ktze. Rev. Gen. Pl. II. 724.

*Luzula pilosa* Miq. Prol. Fl. Jap. 329; Fr. et Sav. Enum. Pl. Jap. II. 96, non Willd.

NOM. JAP. *Miyama-nukaboshiso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Ishikari, Teshio.

DISTRIB. *Yezo*, Honshu and Kamtchatka(?).

**563. *Luzula rufescens*** Fisch. in Linnaea XXII. 385; E. Mey. in Ledeb. Fl. Ross. IV. 215; Maxim. Prim. Fl. Amur. 292; Miq. Prol. Fl. Jap. 329; Fr. Schm. Fl. Sachal. 189; Fr. et Sav. Enum. Pl. Jap. II. 96; Matsum. Ind. Pl. Jap. II. 1: 187; Buchen. Monogr. Juncac. 81, et Juncac. 46; Mak. & Nem. Fl. Jap. ed. 2. 1529; Kom. Fl. Pen. Kamtsch. I. 283; Hult. Fl. Kamtch. IV. 245.

*Juncodes rufescens* O. Ktze, Rev. Gen. II. 725.

NOM. JAP. *Kuroboshiso*.

HAB. *Southern Saghalien*. Odomari, Mauka, Toyohara.

DISTRIB. *Saghalien*, Amur, Eastern Siberia to Kamtchatka and Alaska in N. America.

var. **macrocarpa** Buchen. Juncac. 47; Miyabe & Miyake, Fl. Saghal. 493; Kudo, Centrib. Fl. N. Saghal. 26, et Rep. Veg. N. Sagh. 78.

NOM. JAP. *O-kuroboshiso*.

HAB. *Southern Saghalien*. Odomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi.

DISTRIB. Saghalien and Amur.

**564. *Luzula rostrata*** Buchen. Juncac. 47; Nakai, Veg. Daisetsusan Mts. 60; Mak. & Nem. Fl. Jap. ed. 2. 1528.

NOM. JAP. *Miyama-suzumehie*, *Miyama-nukaboshiso*.

HAB. *Yezo*. Ishikari.

DISTRIB. *Yezo* and Honshu.

**565. *Luzula plumosa*** E. Mey. in Linnaea, XXII. 387; Buchen. in Engl. Bot. Jahrb. VI. 195, et Monogr. Juncac. 85, et Juncac. 48; Hook. f. Fl. Brit. Ind. VI. 401; Matsum. Ind. Pl. Jap. II. 1: 187; Kudo, Pl. Paramushir, 85; Mak. & Nem. Fl. Jap. ed. 2. 1528; Tatewaki, Pl. Isl. Alaid, 157, et Veg. Akan, 52.

*Juncus pilosa* Thunb. Fl. Jap. 145.

*Luzula pilosa* Willd. var. *plumosa* Franch. Pl. David. II. 138; Forb. & Hemsl. Ind. Fl. Sin. III. 161.

*Luzula pilosa* Miyabe, Fl. Kuril. 267; Takeda, Fl. Shikotan, 491, non Willd.

*Luzula japonica* G. Sam. in Hult. Fl. Kamtch. I. 224, p.p.

*Juncodes plumosum* O. Ktze. Rev. Gen. Pl. II. 725.

NOM. JAP. *Nukaboshiso*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Ishikari, Teshio, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Ketoi, Ushishir, Rashuwa, Paramushir, Alaid.

DISTRIB. Kuriles, *Yezo*, Honshu, Shikoku, Kyushu, China and Himalaya

**566. *Luzula parviflora*** Desv. in Journ. de Bot. I. 144; Buchen. Juncac. 61; G. Sam. in Hult. Fl. Kamtch. I. 229; Robins. & Fern. in Gray's

New Man. Bot. 7th edit. 279; Tatewaki, in Journ. Facult. Agr. Hokk. Imp. Univ. XXIX. 4: 140; 178; Kom. Fl. Pen. Kamtsch. I. 284.

*Juncoides parviflorum* Coville, Contr. Nat. Herb. IV. 209.

var. **melanocarpa** Buchen. Juncac. 62.

*Juncus melanocarpus* Michx. Fl. Bor.-Amer. I. 190.

*Luzula melanocarpa* Desv. l. c. 142.

NOM. JAP. *Kogome-nukaboshi*.

HAB. *Kuriles*, Urup, Shimushir, Ketoi, Rashuwa, Matsuwa.

DISTRIB. *Kuriles*, Kamtchatka, Siberia, Europe and North America.

**567. *Luzula arcuata*** Wahlb. Fl. Suecica I. 218; Buchenau, Monogr. Junc. 123, et Juncaceæ 70.

var. **unalascensis** Buchen. l. c. 124, et 70.

*Luzula arcuata* var. *kamtschadalarum* G. Sam.? in Hult. Fl. Kamtch. I. 223.

NOM. JAP. *Chishima-nukaboshi*.

HAB. *Kuriles*. Rashuwa (M. Tatewaki & Takahashi, no. 14891, Aug. 3, 1929); Matuwa (M. Tatewaki & Y. Tokunaga, no. 12146, Aug. 3, 1928).

DISTRIB. *Kuriles*, Kamtchatka(?), Aleutians (Isls. Attu & Amchitka, Tatewaki & Takahashi), Unalaska and St. Paul Isl., Bering Str.

**568. *Luzula Wahlenbergii*** Rupr. Beitr. Pflanzenk. Russ. II. 58; F. Kurtz, in Engl. Bot. Jahrb. XIX. 476; Hult. Fl. Kamtch. I. 230; Nakai, Veg. Daisetsusan Mts. 60; Kom. Fl. Pen. Kamtsch. I. 285; Mak. & Nem. Fl. Jap. ed. 2. 1529.

*Luzula spadicea* DC. var. *Wahlenbergii* Buchen. in Engl. Bot. Jahrb. VII. 171, et Monogr. Juncac. 112, et Juncac. 63; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 512; Kudo, Fl. Paramushir, 65.

*Luzula spadicea* DC. var. *Kunthii* E. Mey. in Linnaea XXII. 403, et in Ledeb. Fl. Ross. IV. 217.

NOM. JAP. *Kumoma-suzumenohie*.

HAB. *Yezo*. Ishikari, Rishiri.

*Kuriles*. Urup, Ketoi, Paramushir.

DISTRIB. *Kuriles*, *Yezo*, Honshu, Kamtchatka, Tschutschland, Ochotsk, Siberia and Arctic Europe.

**569. *Luzula Kjellmaniana*** Miyabe et Kudo, Mater. Fl., Hokkaido n. 5, in Trans. Sapporo Nat. Hist. Soc. V. 38; Kudo, Fl. Paramushir, 86, excl. syn.; Mak. & Nem. Fl. Jap. ed. 2. 1528; Tatewaki, in Trans. Sapporo N. H. Soc. IX. 157, et Jour. Fac. Agr. Hokk. Imp. Univ. XXIX, 4: 160, 182.

*Luzula multiflora* var. *Kjellmaniana* G. Sam. in Hult. Fl. Kamtch. I. 227.

*Luzula japonica* Yabe et Yendo, Fl. Shumushu, (174), non Buchenau.

*Luzula campestris* var. *multiflora* Yabe et Yendo, l. c. (174), non Celak.

*Luzula campestris* var. *sudetica* Kudo, Fl. Paramushir, 86, non Celak.

*Luzula sudetica* Kom. Fl. Pen. Kamtsch. I. 287, non DC.

NOM. JAP. *Chishima-suzumenohie*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Urup, Shimushir, Ketoi, Ushishir, Rashua, Matuwa, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Toyohara.

DISTRIB. *Yezo*, *Saghalien*, *Kuriles*, *Kamtchatka* and *Bering Sea Regions*.

**570. *Luzula pallescens*** Besser, Enum. Pl. Volh. Podol. 15; G. Sam. in Hult. Fl. Kamtch. I. 228; Kom. Fl. Pen. Kamtsch. I. 286.

*Juncus pallescens* Wahlenb. Fl. Lapp. 87.

*Luzula campestris* var. *pallescens* Wahlenb. Fl. Suec. I. 218; Buchen. Monogr. Juncac. 163, et Juncac. 88.

*Luzula sudetica* var. *pallescens* Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 519.

NOM. JAP. *Oka-suzumenohie*.

HAB. *Yezo*. Iburi, Ishikari, Kushiro, Nemuro.

*Kuriles*. Kunashiri.

DISTRIB. *Kuriles*, *Yezo*, *Honshu*, *Kyushu*, *Manchuria*, *Amur*, *Kamtchatka* and *Europe*.

**571. *Luzula oligantha*** G. Sam. in Hult. Fl. Kamtch. I. 227, et IV. 245.

*Luzula campestris* var. *pauciflora* Buchen. Juncac. 88; Matsum. Ind. Pl.

Jap. II. 1: 186; Nakai, Fl. Korea. II. 269; Mak. & Nem. Fl. Jap. ed. 2. 1527; Tatewaki, Veg. Akan, 52.

*Luzula sudetica* var. *pauciflora* Nakai, Veg. Daisetsusan Mts. 60.

NOM. JAP. *Takane-suzumenohie*, *Kuro-takane-suzumenohie*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Rishiri, Tokachi, Kushiro.

DISTRIB. *Yezo*, Honshu, Korea, China and Kamtchatka.

**572. *Luzula capitata*** Nakai, Veg. Mt. Apoi. 76.

*Luzula campestris* var. *capitata* Miq. Prol. Fl. Jap. 329; Fr. et Sav. Enum. Pl. Jap. II. 97; Buchen. Monogr. Juncac. 160, et Juncac. 92; Palib. Consp. Fl. Korea. III. 17; Koidz. Pl. Sachal. 31; Nakai, Fl. Korea. II. 268; Takeda, Fl. Shikotan, 490; Miyabe & Miyake, Fl. Saghal. 494; Kudo, Fl. Paramushir, 87; Mak. & Nem. Fl. Jap. ed. 2. 1527; Tatewaki, Veg. Mt. Apoi, 71.

*Luzula campestris* var. *congesta* Miyabe, Fl. Kuril. 267.

*Luzula capitata* Kom. Fl. Penins. Kamtsch. I. 288, non Miq.

NOM. JAP. *Suzumenohie*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Paramushir.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Tomarioro, Toyohara, Motodomari, Shikka.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Shikoku, Kyushu, Korea, Manchuria and Kamtchatka.

**573. *Luzula multiflora*** Lejeune, Fl. Envir. Spa I. 169; G. Sam. in Hult. Fl. Kamtch. I. 226; Kom. Fl. Pen. Kamtsch. I. 287.

*Juncus multiflorus* Ehrh. Calam. Gram. et Tripet. Exicc.

*Juncus multiflorus* Retz. Fl. Scand. Prodr. ed. 2. 82.

*Luzula campestris* var. *multiflora* Celak. Prodr. Fl. Böhmen, 85, 749; Buchen. Monogr. Juncac. 161, et Juncac. 94; Matsum. Ind. Pl. Jap. II. 1: 186; Miyabe & Miyake, Fl. Saghal. 493; Kudo, Contr. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 78; Mak. & Nem. Fl. Jap. ed. 2. 1527.

*Luzula campestris*  $\beta$ . *multiflora* Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 523.

*Luzula campestris* Miyabe, Fl. Kuril. 267, non DC.

*Luzula campestris* var. *intermedia* Koidz. Pl. Sachal. 32, pl. 1; Mak. & Nem. Fl. Jap. 1294.

*Luzula multiflora* var. *intermedia* Nakai, Veg. Daisetsusan Mts. 60.

NOM. JAP. *Yamasuzumenohie*.

HAB. *Yezo*. Shiribeshi, Ishikari, Teshio, Tokachi, Nemuro.

*Kuriles*. Kunashiri, Etorofu, Urup, Paramushir.

*Southern Saghalien*. Odomari, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Shikoku, Kyushu, Korea, Manchuria, China, Amur, Ussuri, Siberia, Kamtchatka, Tschutchland, Himalaya, Khasia, Philippines, Caucasus, Europe, North America, N. Africa, Tasmania, New Zealand, Australia and South America.

### *Juncus* L.

**574. *Juncus bufonius*** L. Sp. Pl. ed. 1, 328; Kunth, Enum. III. 353, 597; Ledeb. Fl. Alt. II. 48, et Fl. Ross. IV. 231; Maxim. Prim. Fl. Amur. 294; Fr. Schm. Fl. Sachal. 189; Fr. et Sav. Enum. Pl. Jap. II. 99; Buch. Monogr. Juncac. 174 et Juncac. 105; Hook. f. Fl. Brit. Ind. VI. 392; Britt. & Br. Ill. Fl. I. 358; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2. 420; Forb. et Hemsl. Ind. Fl. Sin. III. 162; Koidz. Pl. Sachal. 32; Matsum. Ind. Pl. Jap. II. 1: 183; Nakai, Fl. Korea. II. 266; Takeda, Fl. Shikotan, 491; Miyabe & Miyake, Fl. Saghal. 489; Kudo, Contr. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 79; Mak. & Nem. Fl. Jap. ed. 2. 1522; Hult. Fl. Kamtch. I. 218; Kom. Fl. Pen. Kamtsch. I. 276; Tatewaki, Veg. Akan, 52.

NOM. JAP. *Himekogaizekisho*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari, Kitami, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu.

*Southern Saghalien*. Odomari, Ushoro, Toyohara, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Pronge-Baikal.

DISTRIB. Kuriles, Saghalien, Yezo, Honshu, Kyushu, Korea, Man-

churia, Amur, Ussuri, Kamtchatka, Siberia, Himalaya, Caucasus, Europe, North and South America and Australia.

**575. *Juncus compressus*** Jacq. Enum. Stirp. Pler. 60, 235; Ledeb. Fl. Ross. IV. 229; Buch. Monogr. Juncac. 184 et Juncac. 111; Hook. f. Fl. Brit. Ind. VI. 393; Palib. Consp. Fl. Korea. II. 266.

var. **gracillimus** Buch. Juncac. 112; Matsum. Ind. Pl. Jap. II. 183; Miyabe & Miyake, Fl. Saghal. 490; Mak. & Nem. Fl. Jap. ed. 2. 1523.

*Juncus Gerardi* Lois. var. Fr. Schm. Fl. Sachal. 189.

NOM. JAP. *Mizu-i, Doro-i.*

HAB. *Yezo.* Oshima, Iburi, Kitami, Kushiro, Nemuro.

*Southern Saghalien.* Odomari, Toyohara.

DISTRIB. Saghalien, Yezo, Honshu, Kyushu, Korea and China.

**576. *Juncus tenuis*** Willd. in Linn. Sp. Pl. II. 214; Watson, Bot. Calif. II. 207; Buch. Monogr. Juncac. 193, et Juncac. 115; Britt. & Br. III. Fl. I. 386; Wiegand, in Bull. Torr. Bot. Club, XXVII. 511; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 434; Matsum. Ind. Pl. Jap. II. 1: 185; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 6, in Trans. Sapporo Nat. Hist. Soc. V. 39; Mak. & Nem. Fl. Jap. ed. 2. 1526.

NOM. JAP. *Kusai, Shirane-i.*

HAB. *Yezo.* Oshima, Ishikari, Iburi, Nemuro.

DISTRIB. Yezo, Honshu, Europe, N. and S. America and Australia.

**577. *Juncus filiformis*** L. Sp. Pl. ed. 1, 326; Kunth, Enum. Pl. III. 318; Ledeb. Fl. Alt. II. 46, et Fl. Ross. IV. 223; Trautv. et Mey. Fl. Ochot. 97; Maxim. Prim. Fl. Amur. 293; Fr. Schm. Fl. Sachal. 189; Rgl. Tent. Fl. Ussuri. 157; Buch. Monogr. Juncac. 224 et Juncac. 127; Britt. & Br. III. Fl. I. 383; Kom. Fl. Mansh. I. 426; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 440; Miyabe & Miyake, Fl. Saghal. 490; Mak. & Nem. Fl. Jap. ed. 2. 1524; Hult. Fl. Kamtch. I. 220; Kom. Fl. Pen. Kamtsch. I. 277.

*Juncus effusus* var. *decipiens* Kudo, Fl. Paramushir, 87.

NOM. JAP. *Karafuto-hosoi.*

HAB. *Southern Saghalien.* Tomarioro, Ushoro, Shikka.

*Northern Saghalien.* Alexandrowsk, Oha, Schmidt-Penn.

*Kuriles.* Kunashiri, Urup, Paramushir.

DISTRIB. Saghalien, Kuriles, Kamtchatka, Ochotsk, Amur, Ussuri, Siberia, Europe and North America.

**578. *Juncus curvatus*** Buch. Juncac. 128; Matsum. Ind. Pl. Jap. II. 1: 183; Miyabe & Miyake, Fl. Saghal. 490; Mak. & Nem. Fl. Jap. ed. 2. 1523; Nakai, Veg. Daisetsusan Mts. 60.

*Juncus filiformis* var. *curvatus* Kudo, Contrib. Fl. N. Saghal. 128, et Rep. Veg. N. Saghal. 79.

NOM. JAP. *Yezo-hosoi*, *Rishiri-i*.

HAB. *Yezo.* Shiribeshi, Iburi, Ishikari, Rishiri, Nemuro.

*Kuriles.* Etorofu, Urup.

*Southern Saghalien.* Mauka, Tomarioro, Shikka.

*Northern Saghalien.* Tymi.

DISTRIB. Saghalien, Kuriles, Yezo and Honshu.

**579. *Juncus beringensis*** Buch. Monogr. Juncac. 226, et Juncac. 129; Matsum. Ind. Pl. Jap. II. 1: 183; Takeda, in Tokyo Bot. Mag. XXIV. 177; Kudo, Fl. Paramushir, 87; Mak. & Nem. Fl. Jap. ed. 2. 1523; Hult Fl. Kamtch. I. 217; Kom. Fl. Pen. Kamtsch. I. 278; Nakai, Veg. Daisetsusan Mts. 59.

*Juncus Drummondii* E. Mey. in Ledeb. Fl. Ross. IV. 235, p.p.

*Juncus Fauriei* Lévl. et Vnt. in Bull. Soc. Bot. France LI. 292, p.p.

NOM. JAP. *Miyamai*, *Tateyamai*.

HAB. *Yezo.* Ishikari, Tokachi, Nemuro.

*Kuriles.* Etorofu, Paramushir.

DISTRIB. Kuriles, Yezo, Honshu, Kamtchatka, Ochotsk and Behring Island.

**580. *Juncus effusus*** L. Sp. Pl. ed. 1, 326; Thunb. Fl. Jap. 145; Fr. Schm. Fl. Sachal. 189; Miyabe, Fl. Kuril. 266; Buch. Monogr. Juncac. 228, et Juncac. 135; Diels, Fl. C. China, 238; Hook. f. Fl. Brit. Ind. VI. 392; Britt. & Br. Ill. Fl. I. 382; Palib. Consp. Fl. Korea. III. 16; Kom. Fl. Mansh. I. 425; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 442; Forb. & Hemsl. Ind. Fl. Sin. III. 163; Hegi, Ill. Fl. Mitteleurop. II. 151; Matsum. et Hayata, Enum. Fl. Formos. 451.

*Juncus communis* E. Mey. var. *effusus* E. Mey. Juncac. Gen. Monogr. 20; Ledeb. Fl. Ross. IV. 221.

var. **compactus** Lej. et Court. Comp. Fl. Belg. II. 23; Buchen. Juncac. 136; Nakai, Veg. Mt. Apoi, 76.

*Juncus effusus* var. *decipiens* f. *glomeratus* Makino, in Tokyo Bot. Mag. XII. 163; Mak. & Nem. Fl. Jap. ed. 2. 1523.

*Juncus effusus* var. *decipiens* Miyabe & Miyake, Fl. Saghal. 491; Kudo, Contrib. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 79, non Buchenau.

NOM. JAP. *Tamai*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. *sp.* Saghalien, Kuriles, Yezo, Honshu, Shikoku, Kyushu, Formosa, Korea, Manchuria, Siberia, China, Himalaya, Europe, Africa, Australia and America.

**581. *Juncus decipiens*** Nakai, Veg. Kamikochi, 35.

*Juncus effusus* var. *decipiens* Buchen. Monogr. Juncac. 229, et Juncac. 136; Matsum. Ind. Pl. Jap. II. 1: 183; Makino, in Tokyo Bot. Mag. XII. 162; Mak. & Nem. Fl. Jap. ed. 2. 1523.

NOM. JAP. *I, Igusa*.

HAB. *Yezo*. Kushiro.

var. **gracilis** Nakai, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 76.

*Juncus effusus* var. *decipiens* Buch. f. *gracilis* Buch. in litt. ex Matsum. Ind. Pl. Jap. II. 1: 184; Mak. & Nem. Fl. Jap. ed. 2. 1524.

*Juncus effusus* var. *decipiens* Koidz. Pl. Saghal. 32.

NOM. JAP. *Hime-i*.

HAB. *Yezo*. Shiribeshi, Ishikari, Teuri-to, Hidaka, Kushiro, Nemuro.

*Kuriles*. Shikotan.

*Southern Saghalien*. Odomari, Toyohara.

DISTRIB. *sp.* Saghalien, Kuriles, Yezo, Honshu, Shikoku and Kyushu.

**582. *Juncus Fauriei*** Lévl. et Vnt. in Bull. Soc. Franc. LI. 292.

*Juncus balticus* Willd. var. *japonicus* Buch. Monogr. Juncac. 215 et Juncac. 145; Makino, in Tokyo Bot. Mag. XII. 164; Matsum. Ind. Pl. Jap. II. 1: 183; Miyabe & Miyake, Fl. Saghal. 492; Mak. & Nem. Fl. Jap. ed. 2. 1522.

*Juncus glaucus* Ehrh. var. *yokocensis* Fr. et Sav. Enum. Fl. Jap. II. 97.

*Juncus balticus* Fr. et Sav. Enum. Pl. Jap. II. 533, non willd.

NOM. JAP. *Hirai, Inui, Nejii.*

HAB. *Yezo.* Oshima, Kojima, Shiribeshi, Iburi, Hidaka, Nemuro.

*Kuriles.* Kunashiri, Shikotan, Etorofu.

*Southern Saghalien.* Odomari, Toyohara.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu and Kyushu.

**583. *Juncus balticus*** Willd. in Berl. Mag. III. 298; Kunth, Enum. Pl. III. 317; Ledeb. Fl. Ross. IV. 222; Trautv. et Mey. Fl. Ochot. 97; Fr. Schm. Fl. Sachal. 189; Buch. Monogr. Juncac. 214, et Juncac. 144; Miyabe, Fl. Kuril. 266; Britt. & Br. Ill. Fl. I. 384; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 437; Hegi, Ill. Fl. Mitteleurop. Fl. II. 153; Hult. Fl. Kamtch. I. 216.

var. **Haenkei** Buch. Monogr. Juncac. 215, et Juncac. 145; Makino, in Tokyo Bot. Mag. XII. 164; Kom. Fl. Mansh. I. 427; Matsum. Ind. Pl. Jap. II. 1: 183; Takeda, Fl. Shikotan, 491; Miyabe & Miyake, Fl. Saghal. 491; Kudo, Fl. Paramushir, 88, Contr. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 80; Mak. & Nem. Fl. Jap. ed. 2. 1522; Tatewaki, Pl. Is. Alaid, 157.

*Juncus Haenkei* E. Mey. Syn. Juncor. 10; Kom. Fl. Pen. Kamtsch. I. 278.

*Juncus arcticus* Bong. Vég. Sitcha, 167; Koidz. in Tokyo Bot. Mag. XXV. 205, non Willd.

*Juncus arcticus* Willd. var. *sitchensis* Engelm. in Trans. St. Louis Acad. II. 445.

NOM. JAP. *Oinui, Hamai.*

HAB. *Yezo.* Iburi, Tokachi, Nemuro.

*Kuriles.* Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, Rashuwa, Paramushir, Shumushu, Alaid.

*Southern Saghalien.* Odomari, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien.* Alexandrowsk, Nyiwo, Chaiwo, Pronge-Baikal, Oha, Schmidt-Penn.

DISTRIB. *var.* Saghalien, Kuriles, Yezo, Honshu, Kamtchatka, Bering Islands, Unalaska and Sitcha.

**584. *Juncus Fauriensis*** Buch. in Notizb. Kön. Bot. Gart. Berl. III. 127; Matsum. Ind. Pl. Jap. II. 184; Mak. & Nem. Fl. Jap. ed. 2. 1524; Kom. Fl. Pen. Kamtsch. I. 280.

*Juncus Fauriensis* Buch. *var. typicus* Buch. Juncac. 159.

NOM. JAP. *Hoso-kogaizekisho.*

HAB. *Yezo.* Iburi, Ishikari.

*Kuriles.* Etorofu, Urup.

DISTRIB. *Yezo,* Kuriles, Honshu and Kamtchatka.

**585. *Juncus kamschaticensis*** Kudo, Fl. Paramushir, 88.

*Juncus Fauriensis* Buch. *var. kamtchatchensis* Buch. Juncac. 157; Koidz. in Matsum. Icon. Koishikav. II. 75, *pl.* 122; Mak. & Nem. Fl. Jap. ed. 2. 1524; Hult. Fl. Kamtch. I. 219.

NOM. JAP. *Chishima-hosokogaizekisho, Miyama-hosokogaizekisho.*

HAB. *Kuriles.* Kunashiri, Etorofu, Urup, Shimushir, Ketoi, Paramushir.

DISTRIB. Honshu, Kuriles and Kamtchatka.

**586. *Juncus Tokubuchii*** Miyabe et Kudo, Mater. Fl. Hokkaido n. 126, in Trans. Sapporo Nat. Hist. Soc. VIII. 2; Mak. & Nem. Fl. Jap. ed. 2. 1526.

NOM. JAP. *Horomui-kogai.*

HAB. *Yezo.* Iburi, Ishikari.

DISTRIB. Endemic plant.

**587. *Juncus prismatocarpus*** R. Br. Prodr. Fl. N. Holl. 259; Kunth, Enum. Pl. III. 337; Buch. in Engl. Bot. Jahrb. VI. 204, et Monogr. Juncac. 310, et Juncac. 180; Fr. et Sav. Enum. Pl. Jap. II. 98; Diels, Fl. C. China, 238; Hook. f. Fl. Brit. Ind. VI. 395; Forb. et Hemsl. Ind. Fl. Sin. III. 168.

*var. Leschenaultii* Buch. in Engl. Bot. Jahrb. VI. 205, Monogr. Juncac. 311 et Juncac. 180.

*Juncus Leschenaultii* Gay, in Laharpe, Monogr. Junc. 137; Kunth, Enum. Pl. III. 336; Benth. Fl. Hongk. 380; Miq. Prol. Fl. Jap. 328; Fr. et Sav. Enum. Pl. Jap. II. 98, 533.

subvar. **pluritubulosus** Buch. Monogr. Juncac. 311 et Juncac. 181; Matsum. Ind. Pl. Jap. II. 1: 185; Mak. & Nem. Fl. Jap. ed. 2. 1526; Tatewaki, Veg. Akan, 53.

NOM. JAP. *Hoso-kogaizekisho, Hira-kogaizekisho.*

HAB. *Yezo.* Oshima, Ishikari, Kushiro.

DISTRIB. *Yezo, Honshu, Shikoku, Kyushu, Liukiu, Formosa, India and Ceylon.*

subvar. **unitubulosus** Buch. Monogr. Juncac. 311, et Juncac. 181; Kom. Fl. Mansh. 1. 428; Matsum. Ind. Pl. Jap. II. 1: 185; Nakai, Fl. Korea. II. 267; Miyabe & Miyake, Fl. Saghal. 492; Mak. & Nem. Fl. Jap. ed. 2. 1526; Kom. Fl. Pen. Kantsch. I. 281; Tatewaki, Veg. Akan, 53, et Veg. Mt. Apoi, 71.

*Juncus Wallichianus* Laharpe, Monogr. Junc. 139; Nakai, Veg. Mt. Apoi, 76.

*Juncus articulatus* L. *α. genuina* et *β. acutiflora* Rupr. in Maxim. Prim. Fl. Amur. 293; Rgl. Tent. Fl. Ussuri. 157.

*Juncus Leschenaultii* Gay, var. *unitubulosus* Buch.: Korsh. Pl. Amur. 404.

*Juncus articulatus* L. *var.* Fr. Schm. Fl. Sachal. 189.

NOM. JAP. *Hai-kogaizekisho.*

HAB. *Yezo.* Oshima, Iburi, Hidaka, Ishikari, Kushiro.

*Southern Saghalien.* Odomari.

DISTRIB. *var.* Saghalien, *Yezo, Honshu, Kyushu, Korea, China, Manchuria, Amur, Ussuri; sp.* Japan, China, Kamtchatka, Eastern Asia, India, Himalaya, Ceylon, Java, Australia, New Zealand and Tasmania.

**588. *Juncus diastrophanthus*** Buch. Monogr. Juncac. 309, et Juncac. 182; Diels, Fl. C. China, 238; Forb. et Hemsl. Ind. Fl. Sin. III. 163; Matsum. Ind. Pl. Jap. II. 1: 183; Kudo, Rep. Veg. Nopporo 8; Mak. & Nem. Fl. Jap. ed. 2. 1523; Nakai, Veg. Mt. Apoi, 76.

NOM. JAP. *Hirohano-kogaizekisho.*

HAB. *Yezo*. Oshima, Hidaka, Ishikari.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and China.

**589. *Juncus xiphioides*** E. Mey. Syn. Juncor. 50; Kunth, Enum. Pl. II. 331; A. Gray, Pl. Jap. 322; Watson, Bot. Calif. II. 209; Buch. Monogr. Juncac. 306, et Juncac. 182.

var. **montanus** Engelm. in Trans. St. Louis Acad. II. 481; Buch. Monogr. Juncac. 308, et Juncac. 183; Matsum. Ind. Pl. Jap. II. 1: 186; Mak. & Nem. Fl. Jap. ed. 2. 1527.

*Juncus saximontanus* Nelson, in Bull. Torr. Bot. Club, XXIX. 401.

NOM. JAP. *Mikurizekisho*, *Kuro-mikurizekisho*.

HAB. *Yezo*. Shiribeshi, Ishikari.

DISTRIB. var. Honshu, *Yezo*, Western North America.

var. **macranthus** Engelm. in Trans. St. Louis Acad. II. 482; Buch. Monogr. Juncac. 308, et Juncac. 183.

NOM. JAP. *O-mikurizekisho*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Kunashiri.

DISTRIB. *Yezo*, Kuriles and N. Western North America.

**590. *Juncus papillosus*** Fr. et Sav. Enum. Fl. Jap. II. 98, 533; Buch. Monogr. Juncac. 341 et Juncac. 198; Matsum. Ind. Pl. Jap. II. 1: 185; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 7, in Trans. Sapporo Nat. Hist. Soc. V. 39; Mak. & Nem. Fl. Jap. ed. 2. 1525; Tatewaki, Veg. Akan, 53, et Veg. Mt. Apoi, 72; Nakai, Veg. Mt. Apoi, 76.

*Juncus nipponensis* Buch. Monogr. Juncac. 340 et Juncac. 198; Kom. Fl. Mansh. I. 429; Matsum. Ind. Fl. Jap. II. 1: 184; Nakai, Fl. Korea. II. 268.

*Juncus umbellifer* Lévl. et Vnt. in Bull. Soc. Bot. Franc. LI. 292.

NOM. JAP. *Hosobano-kogaizekisho*, *Ao-kogaizekisho*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Kyushu, Korea, Manchuria, Amur and China.

**591. *Juncus Mertensianus*** Bong. Vég. Sitcha, 167; Buch. Juncac. 201; Howell, Fl. N. W. America 686; Abrams, Ill. Fl. Pacif. St. I. 363;

Nakai, Veg. Daisetsusan Mts. 60, 74.

*Juncus ensifolius* Koidz. in Tokyo Bot. Mag. XXXI. 262; Mak. & Nem. Fl. Jap. ed. 2. 1524, non Wikstr.

NOM. JAP. *Yezo-mikurizekisho*, *Kumoma-mikurizekisho*.

HAB. *Yezo*. Ishikari.

DISTRIB. *Yezo* and Northwestern part of North America.

**592. *Juncus lampocarpus*** Ehrh. Calam. etc. n. 126, ca. 1791; Buch. in Engl. Jahrb. XII. 376, et Juncac. 217; Aschers. u. Graebn. Syn. Mitteleurop. Fl. II. 2: 476; Hult. Fl. Kamtch. I. 221; Mak. & Nem. Fl. Jap. ed. 2. 1524.

*Juncus lamprocarpos* Ehrh. apud Rchb. Fl. Germ. I. 95; Kunth, Enum. Pl. III. 325.

*Juncus articulatus* L. Sp. Pl. ed. 1. 327, p. p.; Ledeb. Fl. Ross, IV. 225.

NOM. JAP. *Karafuto-hanabi-zekisho*.

HAB. *Kuriles*. (fide Buchenau.)

*Southern Saghalien*. Shikka.

DISTRIB. Saghalien, Kuriles, Kamtchatka, Siberia, China, Kashmir, Afghanistan, Persia, Europe and N. America.

**593. *Juncus Kramerii*** Fr. et Sav. Enum. Pl. Jap. II. 99, 534; Buch. Monogr. Juncac. 383, et Juncac. 220; Matsum. Ind. Pl. Jap. II. 1: 184; Nakai, Fl. Korea. II. 268, et Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. ed. 2. 1524; Tatewaki, Veg. Akan, 53, et Veg. Mt. Apoi, 72.

*Juncus articulatus* Miyabe, Fl. Kuril. 266, non L.

?*Juncus lampocarpus* Takeda, Fl. Shikotan, 491, non Ehrh.

NOM. JAP. *Tachikogaizekisho*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Kitami, Kushiro, Nemuro.

*Kuriles*. Shikotan, Etorofu.

DISTRIB. Kuriles, *Yezo*, Honshu, Kyushu, Liukiu and Korea.

**594. *Juncus luzuliformis*** Franch. in Nouv. Arch. Mus. Hist. Nat. X. 99; Buch. Monogr. Juncac. 204, et in Engl. Bot. Jahrb. XXXVII. Beibl. 82. 14, et Juncac. 227; Forb. et Hemsl. Ind. Fl. Sin. III. 164.

var. **Potaninii** Buch. in Engl. Bot. Jahrb. XXVII. Beibl. 82. 15, 17, et Juncac. 228, f. 105; Koidz. in Tokyo Bot. Mag. XXX. 329; Mak. & Nem. Fl. Jap. ed. 2. 1525.

*Juncus Potaninii* Buch. Monogr. Juncac. 394; Diels, Fl. C. China, 238.

NOM. JAP. *Yezo-itoi*.

HAB. *Yezo*. *Ishikari*.

DISTRIB. *Yezo* and *China*.

**595. *Juncus castaneus*** Sm. Fl. Brit. ed. 1, 383; Kunth, Enum. Pl. II. 357; E. Mey. in Linnaea, III. 374; Ledeb. Fl. Alt. II. 50 et Fl. Ross. IV. 232; Hook. et Arn. in Beech. Voy. 131; Turcz. Fl. Cat. Baical. n. 1170; Kjellmann, Phanerog. Fl. Asiat. 373; Buch. Monogr. Juncac. 403 et Juncac. 233; F. Kurtz, in Engl. Bot. Jahrb. XIX. 412, 476; Britt. & Br. Ill. Fl. I. 389; Aschers. u. Graebn. Syn. Mitteleurop. II. 2: 487; Hegi, Ill. Fl. Mitteleurop. Fl. II. 164, f. 293; Kudo, Fl. Paramushir, 89; Hult. Fl. Kamtch. I. 219; Kom. Fl. Pen. Kamtsch. I. 282.

*Juncus triceps* Rostkovius, de Junco 48, t. 1, f. 4; Smith, Engl. Bot. XIII. t. 900; Kunth, Enum. Pl. III. 357.

*Juncus Czetzii* Schur, in Oesterr. Bot. Zeitschr. (1863) 111; Buch. Monogr. Juncac. 403.

*Juncus castaneus* Sm. var. *fuscus* Hook. Fl. Bor.-Amer. II. 192; Nakai, Veg. Daisetsusan Mts. 60.

NOM. JAP. *Kuro-kogaizekisho*.

HAB. *Yezo*. *Ishikari*, *Nemuro*.

*Kuriles*. *Paramushir*.

DISTRIB. *Yezo*, *Kuriles*, *Kamtchatka*, *Tschuktsch*, *Ochotsk*, *Siberia*, *Mongolia*, *China*, *Turkestan*, *Europe* and *North America*.

**596. *Juncus triglumis*** L. Sp. Pl. ed. 1, 328; Kunth, Enum. Pl. III. 358; Ledeb. Fl. Ross. IV. 233; Rgl. et Til. Fl. Ajan. 124; Buch. Monogr. Juncac. 388, et Juncac. 224; Hook. f. Fl. Brit. Ind. VI. 396; Britt. & Br. Ill. Fl. I. 390; Trautv. Fl. Terr. Tschuktschor. 38; F. Kurtz, in Engl. Bot. Jahrb. XIX. 477; Yabe, in Tokyo Bot. Mag. XVII. 17; Matsum. Ind. Pl. Jap. II. 1: 186; Hegi, Ill. Fl. Mitteleurop. II. 163; Kudo, Fl. Paramushir,

88; Mak. & Nem. Fl. Jap. ed. 2. 1526; Printz, Veg. Sib. Mong. Front. 177; Hult. Fl. Kamtch. I. 223.

NOM. JAP. *Takanei*, *Shiroumazekisho*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Paramushir.

DISTRIB. Kuriles, Yezo, Honshu, Kamtchatka, Ochotsk, Siberia, Himalaya, Tibet, Europe and North America.

**597. *Juncus stygius*** L. Syst. Nat. ed. 10. II. 987; Kunth, Enum. Pl. III. 359; Ledeb. Fl. Ross. IV. 232; Buchenau, Monogr. Junc. 392, et Juncac. 225; Britt. & Br. III. Fl. I. 389; Aschers. u. Graebn. Syn. Mitteleur. Fl. II. 2: 486; Hult. Fl. Kamtch. IV. 244.

NOM. JAP. *Chishima-itoi*.

HAB. *Kuriles*. Kunashiri, Furukamap (J. Ohwi. 20, VIII. 1931).

DISTRIB. Kuriles, Kamtchatka, Siberia, Europe and N. America (var.)

**598. *Juncus prominens*** Miyabe et Kudo, Mater. Fl. Hokkaido, n. 8, in Trans. Sapporo Nat. Hist. Soc. V. 40; Kudo, Fl. Paramushir, 89; Mak. & Nem. Fl. Jap. ed. 2. 1526; Hult. Fl. Kamtch. I. 222; Tatewaki, Veg. Mt. Apoi, 72; Nakai, Veg. Mt. Apoi, 76.

*Juncus falcatus* E. Mey. var. *prominens* Buch. Juncac. 247, f. 116; Matsum. Ind. Pl. Jap. II. 1: 184.

NOM. JAP. *Yezo-mikurizekisho*, *Sekishoi*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Etorofu, Urup, Shimushir, Paramushir.

DISTRIB. Yezo, Kuriles and North America.

#### LILIACEÆ

##### *Tofieldia* Huds.

**599. *Tofieldia Okubo*** Makino, in Tokyo Bot. Mag. XII. 42; Takeda, in ibidem, XXIV. 317, et in Notes R. B. G. Edinbg. Vol. VIII. Num. XXXIX. 230; Matsum. Ind. Pl. Jap. II. 1: 215; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 24, in Trans. Sapporo Nat. Hist. Soc. V. 73; Mak. & Nem.

Fl. Jap. ed. 2. 1571; Nakai, Veg. Daisetsusan Mts. 60.

NOM. JAP. *Hime-iwashobu*, *Hime-iwazekisho*.

HAB. *Yezo*. Hidaka, Ishikari, Tokachi.

*Kuriles*. Etorofu.

DISTRIB. Kuriles, Yezo and Honshu.

**600. *Tofieldia yezoensis*** Miyabe et Kudo, Mater. Fl. Hokkaido, n. 25, in Trans. Sapporo Nat. Hist. Soc. V. 73; Mak. & Nem. Fl. Jap. ed. 2. 1571.

NOM. JAP. *Yenawa-zekisho*.

HAB. *Yezo*. Iburi, Tokachi.

DISTRIB. Endemic plant.

**601. *Tofieldia Kondoi*** Miyabe et Kudo, Mater. Fl. Hokkaido, n. 26, in Trans. Sapporo Nat. Hist. Soc. V. 74; Mak. & Nem. Fl. Jap. ed. 2. 1571.

*Tofieldia fusca* var. *Kondoi* Tatewaki, Veg. Mt. Apoi, (72).

*Tofieldia nutans* Nakai, Veg. Mt. Apoi, 78, p. p., non Willd.

NOM. JAP. *Apoi-zekisho*.

HAB. *Yezo*. Hidaka.

DISTRIB. Endemic plant.

**602. *Tofieldia nutans*** Willd. ex Schult. Syst. VII. 1573; Kunth, Enum. Pl. IV. 170; Ledeb. Fl. Ross. IV. 210; Maxim. in Mém. Biol. VI. 212, et VIII. 416; Fr. et Sav. Enum. Pl. Jap. II. 89; Bak. in Journ. Linn. Soc. Bot. XVII. 487; Yabe et Yendo, in Tokyo Bot. Mag. XVIII. (177); Matsum. Ind. Pl. Jap. II. 1: 215; Takeda, in Tokyo Bot. Mag. XXIV. 317, et Fl. Shikotan, 490; Miyabe et Kudo, Mater. Fl. Hokkaido, n. 27, in Trans. Sapporo Nat. Hist. Soc. V. 75; Miyabe & Miyake, Fl. Saghal. 483; Kudo, Fl. Paramushir, 89; Mak. & Nem. Fl. Jap. ed. 2. 1571; Hult. Fl. Kamtch. I. 230; Nakai, Veg. Daisetsusan Mts. 60, & Veg. Mt. Apoi, 78; Tatewaki, in Jour. Fac. Agr. Hokkaido Imp. Univ. XXIX. 4: 147, 182; Kom. Fl. Pen. Kamtsch. I. 289.

*Tofieldia gracilis* Matsudaira, in Tokyo Bot. Mag. IX. 470, non Fr. et Sav.

NOM. JAP. *Chishima-zekisho*.

HAB. *Yezo*. Shiribeshi, Hidaka, Ishikari, Tokachi.

*Kuriles*. Kunashiri, Etorofu, Urup, Shimushir, Rashuwa.

*Southern Saghalien.* Toyohara, Motodomari.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kamtchatka, Siberia, Arctic E. Asia, Alaska and Arctic America.

var. **rubescens** Nakai, Veg. Daisetsusan Mts. 27, 60.

*Tofieldia calyculata* var. *rubescens* Trantv. et Mey. Fl. Ochot. 96; Regel et Til. Fl. Ajan. 124.

*Tofieldia palustris* var. *rubescens* Hoppe, in Bot. Zeit. IV. 188.

*Tofieldia nutans* Tatewaki, Pl. Is. Alaid, 157, non Willd.

NOM. JAP. *Akamino-chishima-zekisho*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Shikotan, Shimushir, Ketoi, Rashuwa, Paramushir, Alaid.

DISTRIB. *Yezo*, Kuriles, Kamtchatka, Ochotsk, and Ajan.

**603. *Tofieldia fusca*** Miyabe et Kudo, Mater. Fl. Hokk. n. 28, in Trans. Sapporo Nat. Hist. Soc. V. 75; Mak. & Nem. Fl. Jap. ed. 2. 1570; Honda, Rep. Alp. Pl. Mt. Shirouma, 17; Koidz. Fl. Symb. As.-Or. 37.

*Tofieldia nutans* var. *fusca* Koidz. in Tokyo Bot. Mag. XXXI. 138.

NOM. JAP. *Kuromi-no-iwazekisho*.

HAB. *Yezo*. Ishikari.

*Southern Saghalien.* Toyohara, Motodomari.

DISTRIB. Saghalien, *Yezo* and Honshu.

form. **rishirensis** Miyabe et Kudo, Mater. Fl. Hokkaido n. 28, in Trans. Sapporo Nat. Hist. Soc. V. 76; Mak. & Nem. l. c.

*Tofieldia nutans* Kawakami, in Tokyo Bot. Mag. XIV. 107; Takeda, in ibidem, XXIV. 317, p.p. non Willd.

NOM. JAP. *Rishiri-zekisho*.

HAB. *Yezo*. Ishikari, Rishiri.

*Southern Saghalien.* Todomoshiri.

DISTRIB. Endemic plant.

### ***Narthecium*** Moehr.

**604. *Narthecium asiaticum*** Maxim. in Mém. Biol. VI. 214; Fr. et Sav. Enum. Pl. Jap. II. 88; Baker, in Journ. Linn. Soc. Bot. XV. 350;

Matsum. Ind. Pl. Jap. II. 1: 207; Mak. & Nem. Fl. Jap. ed. 2. 1558; Tatewaki, in Journ. Sapporo Soc. Agric. & Forestry, XXIII. 79.

NOM. JAP. *Kinkokwa*.

HAB. *Yezo*. Ishikari: Horomui-moor (M. Tatewaki, 1924).

DISTRIB. *Yezo* and Honshu.

***Japonolirion*** Nakai,

in Tokyo Bot. Mag. XLIV. 22, (1930).

**605. *Japonolirion Saitoi*** Makino et Tatewaki, in Journ. Jap. Bot. VII. 5, (1931); Makino & Nemoto, Fl. Jap. ed. 2. 1551.

NOM. JAP. *Teshioso*.

HAB. *Yezo*. Teshio, Kitami.

DISTRIB. Endemic.

***Heloniopsis*** A. Gray

**606. *Heloniopsis japonica*** Maxim. in Mél. Biol. VI. 211; Fr. et Sav. Enum. Pl. Jap. II. 87; Matsum. Ind. Pl. Jap. II. 1: 197; Nakai, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1547.

*Scilla japonica* Thunb. Fl. Jap. 137.

*Scilla bifolia* Thunb. Fl. Jap. 138, non L.

*Scilla orientalis* Thunb. in Trans. Linn. Soc. II. 334.

*Heloniopsis pauciflora* A. Gray, in Mem. Am. Acad. Art. Sci. n. s. VI. 416; Mak. & Nem. Fl. Jap. ed. 2. 1547; Tatewaki, Veg. Mt. Apoi, 72.

*Sugerokia japonica* Miq. in Versl. Medeel. Konik. Akad. Weten. Ser. 2. II. 88, t. 2, et Prol. Fl. Jap. 309.

*Heloniopsis orientalis* Tanaka, in Bult. Sci. Fakult. Terk. Kjusu Imp. Univ. I. 4: 200.

*Heloniopsis orientalis* Koidz. in Tokyo Bot. Mag. XXXIX. 312; Mak. & Nem. Fl. Jap. ed. 2. 1547.

*Sugerokia orientalis* Koidz. Fl. Symb. Or.-As. (95).

NOM. JAP. *Shojo-bakama*.

HAB. *Yezo*. Oshima, Shiribeshi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi.

*Southern Saghalien*. Odomari.

DISTRIB. Saghalien, Yezo, Honshu, Shikoku and Kyushu.

***Metanartheicum*** Maxim.

**607. *Metanartheicum luteo-viride*** Maxim. in Mél. Biol. VI. 213; Baker, in Jour. Linn. Soc. Bot. XVII. 285; Fr. et Sav. Enum. Pl. Jap. II. 88; Matsum. Ind. Pl. Jap. II. 1: 207; Mak. & Nem. Fl. Jap. ed. 2. 1557.

*Aletris luteo-viridis* Franch. in Jour. de Bot. (1896) 202.

NOM. JAP. *Nogiran, Kitsuneso*.

HAB. *Yezo*. Oshima, Hidaka.

*Kuriles*. Etorofu.

DISTRIB. Kuriles, Yezo, Honshu, Shikoku and Kyushu.

***Stenanthium*** A. Gray

**608. *Stenanthium sachalinense*** Fr. Schm. Fl. Sachal. 188, *t.* 4, *f.* 1-7; Baker, in Journ. Lin. Soc. Bot. XVII. 485; Miyabe & Miyake, Fl. Saghal. 485; Kudo, Contr. Fl. N. Saghal. 26, et Rep. Veg. N. Saghal. 80; Mak. & Nem. Fl. Jap. ed. 2. 1569.

NOM. JAP. *Karafutoso*.

HAB. *Southern Saghalien*. Ushoro, Toyohara.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Endemic species.

***Zygadenus*** Michx.

**609. *Zygadenus Makinoanus*** Miyabe et Kudo, Mater. Fl. Hokkaido n. 17, in Trans. Sapporo Nat. Hist. Soc. V. 69.

*Zygadenus japonicus* Makino, in Tokyo Bot. Mag. XVII. 162; Mak. & Nem. Fl. Jap. ed. 2. 1577, non Miq.

*Anticlea japonica* Makino, in Tokyo Bot. Mag. XXVIII. 108.

*Anticlea japonica* Gates, in Journ. Linn. Soc. XLIV. 153.

*Stenanthium sachalinense* Kawakami, in Tokyo Bot. Mag. XIV. 111, non Fr. Schm.; Matsum. Ind. Pl. Jap. II. 1: 214.

NOM. JAP. *Rishiriso*.

HAB. *Yezo*. Rishiri.

DISTRIB. Endemic species.

***Veratrum*** Tourn.

**610. *Veratrum grandiflorum*** Loes. fil. in Verh. Bot. Vereins Prov. Brandenb. LXVIII. 135, et in Fedde, Repert. XXIV. 63; Nakai, Veg. Mt. Apoi, 78.

*Veratrum album* var. *grandiflorum* Maxim. apud Miq. Bijdr. 19; Baker, in Journ. Linn. Soc. XVII. 471; Fr. et Sav. Enum. Pl. Jap. II. 91; Mak. & Nem. Fl. Jap. ed. 2. 1575.

?*Veratrum album*, Takeda, Fl. Shikotan, 490, non L.

*Veratrum album* var. *Lobelianum* Miyabe & Miyake, Fl. Saghal. 484, non Rchb.

*Veratrum album*  $\beta$ . Ledeb. Fl. Ross. IV. 208; Fr. Schm. Fl. Sachal. 189.

*Veratrum album* var. *Lobelianum* form. *japonicum* Baker, in Journ. Linn. Soc. Bot. XVII. 471; Matsum. Ind. Pl. Jap. II. 1: 218.

NOM. JAP. *Baikeiso*.

NOM. AINU. *Shikup-kina*, *Hoshikiteine*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Kushiro.

*Kuriles*. Shikotan?

*Southern Saghalien*. Honto, Toyohara.

DISTRIB. Saghalien, Kuriles(?), *Yezo*, Honshu and Kyushu.

**611. *Veratrum Lobelianum*** Bernh. in Schrad. N. Journ. 2, II. 356; Loesener f., in Fedde, Repert. XXIV. 64.

var. ***asiaticum*** Loes. f., in Verh. Bot. Ver. Prov. Brandenb. LXVIII. 132, et in Fedde, l. c.; Nakai, Veg. Daisetsusan Mts. 61, 75.

NOM. JAP. *Miyama-baikeiso*.

HAB. *Yezo*. Shiribeshi, Ishikari.

*Southern Saghalien*. Odomari.

DISTRIB. Saghalien, *Yezo*, Amur, Siberia to European Russia.

**612. *Veratrum oxysepalum*** Turcz. in Bull. Soc. Nat. Mosc. (1840) 79; Ledeb. Fl. Ross. IV. 209; Loes. f. in Verh. Bot. Ver. Prov. Brand. LXVIII. 135, et in Fedde, Repert. XXIV. 65.

*Veratrum album* var. *oxysepalum* Miyabe et Kudo, in Miyabe et Miyake, Fl. Saghal. 484; Kudo, Fl. Paramushir, 90, Contrib. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 80; Tatewaki, Pl. Is. Alaid, 158; Mak. & Nem. Fl. Jap. ed. 2. 1576.

*Veratrum album* ssp. *oxysepalum* Hult. Fl. Kamtch. I. 223.

*Veratrum album* Miyabe, Fl. Kuril. 266; Kom. Fl. Pen. Kamtsch. I. 291, non L.

NOM. JAP. *Yezo-baikeiso*.

HAB. *Yezo*. Shiribeshi, Ishikari, Teshio, Rishiri, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Todomoshiri, Odomari, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tymi, Schmidt-Penn.

DISTRIB. Saghalien, Yezo, Kuriles, Kamtchatka, Eastern Asia, and probably also Alaska, (according to Hultén).

**613. *Veratrum stramineum*** Maxim. in Bull. Soc. St. Pétersb. XV. 230, et in Mém. Biol. VII. 339; Fr. et Sav. Enum. Pl. Jap. II. 90; Baker, in Journ. Linn. Soc. Bot. XVII. 471; Yabe, in Tokyo Bot. Mag. XVII. 18; Matsum. Ind. Pl. Jap. II. 1: 218; Takeda, in Tokyo Bot. Mag. XXIV. 318; Loes. f. in Fedde, Repert. XXIV. 65; Mak. & Nem. Fl. Jap. ed. 2. 1576.

NOM. JAP. *Kobaikeiso*, *Kobaikei*, *Shishinohabaki*.

HAB. *Yezo*. Ishikari, Tokachi.

DISTRIB. Yezo and Honshu.

**614. *Veratrum Maximowiczii*** Baker, in Journ. Linn. Soc. Bot. XVII. 472; Matsum. Ind. Pl. Jap. II. 1: 218; Loes. f. in Fedde, Repert. XXIV. 69; Mak. & Nem. Fl. Jap. ed. 2. 1576; Nakai, Veg. Mt. Apoi, 78.

NOM. JAP. *Aoyagiso*.

HAB. *Yezo*. Oshima, Hidaka.

DISTRIB. Yezo, Honshu and Kyushu.

**615. *Veratrum japonicum*** Loesn. f. in Verh. Bot. Ver. Prov. Brand. LXVIII: 141, et in Fedde, Repert. XXIV. 70; Nakai, Veg. Mt. Apoi, 78.

*Veratrum nigrum* var. *japonicum* Baker, in Jour. Linn. Soc. Bot. XVII. 472; Matsum. Ind. Pl. Jap. II. 1: 218; Takeda, in Tokyo Bot. Mag. XXIV. 318; Tatewaki, Veg. Mt. Apoi, 72; Mak. et Nem. Fl. Jap. ed. 2. 1576.

NOM. JAP. *O-shuroso*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Hidaka, Ishikari, Tokachi.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

**616. *Veratrum anticleoides*** Takeda et Miyake, apud Takeda, in Tokyo Bot. Mag. XXIV. 253; Miyabe & Miyake, Fl. Saghal. 485, *pl. XIII*. f. 1-5; Loes. f. in Fedde, Repert. XXV. 2; Mak. & Nem. Fl. Jap. ed. 2. 1576.

*Acelidanthus anticleoides* Trautv. et Mey. Fl. Ochot. 95.

NOM. JAP. *Karafuto-shuroso*, *Karafuto-aoyagiso*.

HAB. *Southern Saghalien*. Motodomari.

DISTRIB. Saghalien and Ochotsk.

### *Tricyrtis* Wall.

**617. *Tricyrtis macropoda*** Miq. in Ann. Mus. Ludg. Bat. III. 155, et Prol. Fl. Jap. 319; Maxim. in Bull. Acad. Pétersb. VI. 208; Fr. et Sav. Enum. Pl. Jap. II. 74; Rgl. Gartenfl. t. 613; Baker, in Jour. Linn. Soc. Bot. XVII. 464; Forb. et Hemsl. Ind. Fl. Sin. III. 142; Matsum. Ind. Pl. Jap. II. 1: 216; Masamune, in Journ. Soc. Trop. Agric. II. 44; Mak. & Nem. Fl. Jap. ed. 2. 1573.

form. ***hirsuta*** Masamune, l. c.; Mak. & Nem. l. c. 1574.

*Tricyrtis macropoda* Miq. var. *hirsuta* Koidz. in Tokyo Bot. Mag. XXXVIII. 97.

NOM. JAP. *Yamahotogisu*.

HAB. *Yezo*. Oshima, Ihuri.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and China.

**618. *Tricyrtis hirta*** Hook. Bot. Mag. t. 5355; Miq. Prol. Fl. Jap. 365; Fr. et Sav. Enum. Pl. Jap. II. 74; Baker, in Journ. Linn. Soc. Bot.

XVII. 464; Matsum. Ind. Pl. Jap. II. 1: 216; Mak. & Nem. Fl. Jap. 1283.

var. **parviflora** Masamune, in Journ. Soc. Trop. Agric. II. 42; Mak. & Nem. Fl. Jap. ed. 2. 1573.

*Uvularia hirta* Thunb. Fl. Jap. 136.

*Tricyrtis parviflora* Dammer, in Fedde, Repert. XV. 367.

NOM. JAP. *Hototogisu*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

**619. *Tricyrtis japonica*** Miq. Versl. in Med. K. Acad. Sér. 2, II. 86, et in Ann. Mus. Bot. Lugd. Bat. III. 155; Fr. et Sav. Enum. Pl. Jap. II. 74; Masamune, in Journ. Soc. Trop. Agric. II. 42; Mak. & Nem. Fl. Jap. ed. 2. 1573.

*Tricyrtis affinis* Makino, in Tokyo Bot. Mag. XVII. 70; Matsum. Ind. Pl. Jap. II. 1: 215.

NOM. JAP. *Yamajino-hototogisu*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

### *Hosta* Tratt.

**620. *Hosta Sieboldiana*** Engl. in Engl. u. Pr. Nat. Pfl.-fam. II. 5. 40, et 2. Aufl. Bd. 15a, 296; Makino, in Tokyo Bot. Mag. XVI. 173; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 54; Matsum. Ind. Pl. Jap. II. 1: 200.

*Funkia Sieboldiana* Hook. Bot. Mag. t. 3663; Kunth, Enum. Pl. IV. 592; Miq. Prol. Fl. Jap. 317; Baker, in Journ. Linn. Soc. Bot. XI. 367; Fr. et Sav. Enum. Pl. Jap. II. 81; Engl. in Engl. Bot. Jahrb. VI. 54; Forb. et Hemsl. Ind. Fl. Sin. III. 117.

var. **longipes** Matsum. Cat. Pl. Herb. Coll. Sc. Imp. Univ. Tokyo 203, Shokubutsumei (1895) 143, et Ind. Pl. Jap. II. 1: 201; Mak. & Nem. Fl. Jap. ed. 2. 1550.

*Funkia longipes* Fr. et Sav. Enum. Pl. Jap. II. 82, et 529.

NOM. JAP. *Iwagiboshi*.

HAB. *Yezo*. Shiribeshi.

DISTRIB. *Yezo*, Honshu, Kyushu and Korea.

**621. *Hosta rectifolia*** Nakai, in Tokyo Bot. Mag. XLIV. 26, 58, et Veg. Mt. Apoi, 15, 77; Mak. & Nem. Fl. Jap. ed. 2. 1550.

*Funkia ovata* var. *flore violaceo* Fr. Schm. Fl. Sachal. 187, non Kunth.

*Hosta coerulea* var. *intermedia* Koidz. Pl. Sachal. 33, non Aschers. et Graebn.

*Hosta japonica* var. *coerulea* Miyabe et Miyake, Fl. Saghal. 470, non Makino.

*Hosta japonica* f. *lancifolia* Tatewaki, Veg. Mt. Apoi, (73), non Kudo.

*Hosta apoiensis* Nakai in sched.

NOM. JAP. *Tachi-giboshu*, *Samani-giboshi*.

NOM. AINU. *Okurukina*, *Ukuru-kina*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Etorofu.

*Southern Saghalien*. Todomoshiri, Honto, Tomarioro, Ushoro, Odomari, Toyohara, Shikka.

DISTRIB. Saghalien, Kuriles, *Yezo* and Honshu.

**622. *Hosta lancifolia*** Engl. in Engl. u. Pr. Nat. Pfl.-fam. II. 5. 40, et 2. Aufl. Bd. 15a, 296; Nakai, Fl. Korea. II. 250.

*Hemerocallis lancifolia* Thunb. in Trans. Linn. Soc. Bot. II. 335.

*Funkia lancifolia* Spr. Syst. Veg. II. 41; Baker, in Journ. Linn. Soc. Bot. XI. 368; Fr. et Sav. Enum. Pl. Jap. II. 82; Kom. Fl. Mansh. I. 441; Forb. et Hemsl. Ind. Fl. Sin. III. 116.

*Hosta coerulea* var. *lancifolia* Matsum. Shokubutsu-meii, 143.

*Hosta coerulea* f. *lancifolia* Matsum. Ind. Pl. Jap. II. 1: 199.

*Hosta coerulea* Kawakami, in Tokyo Bot. Mag. XIV. 107, non Tratt.

NOM. JAP. *Hera-giboshi*.

HAB. *Yezo*. Iburi, Ishikari, Rishiri.

DISTRIB. *Yezo*, Honshu, Korea, Manchuria and China.

**623. *Hosta atropurpurea*** Nakai, in Tokyo Bot. Mag. XLIV. 26, 58, et Veg. Daisetsusan Mts. 60, 74; Mak. & Nem. Fl. Jap. ed. 2. 1549.

NOM. JAP. *Yachi-giboshi*, *Kuroiro-giboshi*, *Kurobana-giboshi*.

HAB. *Yezo*. Ishikari, Teshio.

DISTRIB. Endemic.

***Hemerocallis* L.**

**624. *Hemerocallis citrina*** Baroni, in Ricerche Mus. Ort. Bot. Firenze (1896-7) 145, et in Nuov. Giorn. Bot. Itali. Ser. 2. IV. 305; Wright, in Journ. Linn. Soc. XXXVI. 115; Stout, in Addisonia XV. 3, *pl.* 482.

NOM. JAP. *O-kisuge*, *Ukon-kwanzo*, (Nakai).

HAB. *Yezo*. Iburi, Ishikari, Nemuro.

*Kuriles*. Kunashiri.

DISTRIB. Kuriles, *Yezo*, Honshu, Tsushima and China.

**625. *Hemerocallis Dumortieri*** Morren, Hort. Belg. II. 195, *t.* 43; Baker, in Journ. Linn. Soc. Bot. XI. 359; Franch. et Sav. Enum. Pl. Jap. II. 79; Kom. Fl. Mansh. I. 439; Matsum. Ind. Pl. Jap. II. 1: 197; Nakai, Fl. Korea. II. 252, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1548.

*Hemerocallis graminea* form. 2. *humilior* Maxim. Prim. Fl. Amur. 285; Miq. Prol. Fl. Jap. 316.

NOM. JAP. *Hime-kawazusuge*, *Hime-kwanzo*.

HAB. *Yezo*. Oshima, Ishikari, Hidaka.

DISTRIB. *Yezo*, Honshu, Korea, Manchuria and Eastern Siberia.

**626. *Hemerocallis Middendorffii*** Trautv. et Mey. Fl. Ochot. 94; Maxim. Prim. Fl. Amur. 285; Rgl. Tent. Fl. Ussuri. 153, et in Gartenfl. *t.* 522; Fr. Schm. Fl. Sachal. 187; Bak. in Journ. Linn. Soc. Bot. XI. 359; Kawakami, in Tokyo Bot. Mag. XIV. 107; Miyabe, Fl. Kuril. 264; Kom. Fl. Mansh. I. 439; Forb. et Hemsl. Ind. Fl. Sin. III. 116; Yabe et Yendo, Fl. Shumushu (177); Matsum. Ind. Pl. Jap. II. 1: 198; Koidz. Pl. Sachal. 34; Nakai, Fl. Korea. II. 252; Takeda, Fl. Shikotan, 489; Miyabe et Miyake, Fl. Saghal. 470; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 80; Mak. & Nem. Fl. Jap. ed. 2. 1548; Nakai, Veg. Mt. Apoi, 77; Hult. Fl. Kamtch. IV. 245.

*Hemerocallis Dumortieri* Korsh. Pl. Amur. 403.

NOM. JAP. *Yezo-kwanzo*, *Murashake*.

NOM. AINU. *Kakkok-nommo*, *Chikap-kina*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Shumushu.

*Southern Saghalien*. Todomoshiri, Odomari, Honto, Mauka, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Korea, Manchuria, Amur, Ussuri and Primorskaya.

**627. *Hemerocallis disticha*** Donn. Hortus Cantab. ed. 6. 93, nom. nud.; Ker, in Bot. Mag. XXXV. in nota, sub *t.* 1433; Nakai, in Tokyo Bot. Mag. XXXVIII. (179); Mak. & Nem. Fl. Jap. ed. 2. 1548.

*Hemerocallis japonica* Sweet, Hort. Lond. 67, et Brit. Flow. Gard. I. *t.* 28.

*Hemerocallis fulva* Miq. Prol. Fl. Jap. 316; Fr. et Sav. Enum. Pl. Jap. II. 80; Palib. Consp. Fl. Korea. III. 11; Forb. et Hemsl. Ind. Fl. Sin. III. 115, non L.

var. **Kwanso** Nakai, in Tokyo Bot. Mag. XXXVIII. (180).

*Hemerocallis fulva* var. *Kwanso* Rgl. Gartenfl. XV. 66. *t.* 500; Makino, in Tokyo Bot. Mag. X. 142; Matsum. Ind. Pl. Jap. II. 1: 198; Mak. & Nem. Fl. Jap. ed. 2. 1548.

NOM. JAP. *Yabu-kwanzo*, *Oni-kwanzo*, *Wasuregusa*.

HAB. *Yezo*. Oshima.

DISTRIB. Yezo, Honshu, Kyushu, Formosa, Korea and China.

### *Gagea* Salisb.

**628. *Gagea lutea*** Ker-Gawl. in Bot. Mag. (1809) *t.* 1200; Roem. et Schl. Syst. VII. 538; Kunth, Enum. Pl. IV. 235; Ledeb. Fl. Ross. IV. 138; Miq. Prol. Fl. Jap. 322; Maxim. Prim. Amur. 278; Fr. Schm. Fl. Sachal. 186; Fr. et Sav. Enum. Pl. Jap. II. 61; Hook. f. Fl. Brit. Ind. VI. 355; Yabe et Yendo, Fl. Shumushu, (176); Kom. Fl. Mansh. I. 443; Forb. et Hemsl. Ind. Fl. Sin. III. 138; Hegi, Ill. Fl. Mittel-Europ. II. 211;

Matsum. Ind. Pl. Jap. II. 1: 196; Koidz. Pl. Sachal. 34; Nakai, Fl. Korea. II. 262; Miyabe & Miyake, Fl. Saghal. 474; Kudo, Rep. Veg. N. Saghal. 81; Mak. & Nem. Fl. Jap. ed. 2. 1546; Hult. Fl. Kamtch. I. 236; Nakai, Veg. Mt. Apoi, 77.

*Ornithogalum luteum* L. Sp. Pl. ed. 1, 306.

*Gagea sylvatica* Loud. Hort. Brit. 134; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 90; Kom. Fl. Pen. Kamtsch. I. 293.

*Gagea fascicularis* Salisb. in Kon. & Sims. Ann. Bot. II. 555.

*Gagea pratensis* Nakai, in Tokyo Bot. Mag. XXXVIII. (155), nec Roem. et Schl. non Dumort.

NOM. JAP. *Kibanano-amana*.

NOM. AINU. *Chikap-toma*.

HAB. *Yezo*. Oshima, Hidaka, Ishikari, Teshio, Kushiro, Nemuro.

*Kuriles*. Shikotan, Etorofu, Urup, Shashikotan, Shumushu.

*Southern Saghalien*. Odomari, Mauka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Ussuri, Amur, N. China, India, Kamtchatka, Siberia, Caucasus and Europe.

**629. *Gagea vaginata*** Pascher, in Fedde Repert. II. 58.

*Gagea pusilla* Nakai, Veg. Mt. Apoi, 77, non Roem. et Schult.

NOM. JAP. *Yezo-himeamana*.

HAB. *Yezo*. Oshima, Hidaka, Kushiro, Nemuro.

*Kuriles*. Shikotan.

DISTRIB. Endemic.

### *Allium* L.

**630. *Allium Schoenoprasum*** L. Sp. Pl. ed. 1, 301; Kunth, Enum. Pl. IV. 391; Ledeb. Fl. Ross. IV. 166; Rgl. et Til. Fl. Ajan. 123; A. Gray, Bot. Jap. 416; Rgl. All. Monogr. 78; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 131; Hegi, Ill. Fl. Mittel-Europ. II. 223, *t. 60, f. 2*; Matsum. Ind. Pl. Jap. II. 1: 190; Simpson, in Journ. Linn. Soc. XLI. 446; Printz, Veg. Sib. Mong. Front. 183.

var. **sibiricum** Garcke, Fl. N. u. Mitt. Deuts. 1. Aufl. 322; Rgl. Monogr.

78; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 224; Kudo, Rep. Veg. N. Saghal. 82; Hult. Fl. Kamtch. I. 236; Koidz. Fl. Symb. Or.-As. (54).

*Allium sibiricum* L. Mant. 562; Hook. et Arn. Beech. Voy. 118 et 130; Trautv. et Mey. Fl. Ochot. 93; Kom. Fl. Penins. Kamtsch. I. 297.

*Allium Schoenoprasum* Yabe et Yendo, Fl. Shumushu, (177); Nakai, Veg. Mt. Apoi, 76, non L.

NOM. JAP. *Yezo-negi*, *Yezo-asatsuki*.

NOM. AINU. *Shiku-turu*, *Shukutut*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Kitami, Tokachi, Kushiro.

*Kuriles*. Shumushu.

*Northern Saghalien*. Alexandrowsk, Pronge-Baikal, Oha.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kamtschatka, Ochotsk, Ajaj, Siberia, Europe and North America.

var. **pumilum** Bunge, Enum. Pl. Alt. 19; Rgl. Monogr. All. 79.

NOM. JAP. *Hime-yezonegi*.

HAB. *Yezo*. Shiribeshi, Hidaka.

DISTRIB. *Yezo*, Siberia, Caucasus and Europe.

var. **orientale** Rgl. All. Monogr. 80; Yabe, in Tokyo Bot. Mag. XVII. 18; Matsum. Ind. Pl. Jap. II. 1: 190; Mak. & Nem. Fl. Jap. ed. 2. 1536.

*Allium Schoenoprasum* Maxim. Prim. Fl. Amur. 281, non L.

NOM. JAP. *Shirouma-asatsuki*.

HAB. *Yezo*. Ishikari, Teshio.

*Southern Saghalien*. Motodomari.

DISTRIB. var. Saghalien, Yezo, Honshu, Amur, Ussuri, Eastern Siberia. sp. Saghalien, Kuriles, Yezo, Honshu, Manchuria, Amur, Ussuri, Mongolia, Kamtschatka, Tschuktsch, Siberia, Europe and North America.

**631. *Allium nipponicum*** Fr. et Sav. Enum. Pl. Jap. II. 76, 527; Matsum. Ind. Pl. Jap. II. 1: 190; Mak. & Nem. Fl. Jap. ed. 2. 1536.

NOM. JAP. *Nobiru*.

NOM. AINU. *Membiru*, *Memfiru*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Kitami.

DISTRIB. *Yezo*, Honshu, Kyushu and Liukiu.

**632. *Allium lineare*** L. Sp. Pl. ed. 1, 295; Schult. Syst. Veg. VII. 1064; Kunth, Enum. Pl. IV. 419; Ledeb. Fl. Ross. IV. 178; Maxim. Prim. Fl. Amur. 282; Fr. Schm. Fl. Sachal. 187; Rgl. All. Monogr. 166; Miyabe & Miyake, Fl. Saghal. 472; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 21, in Trans. Sapporo Nat. Hist. Soc. V. 71; Printz, Veg. Sib. Mong. Front. 181; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 82; Mak. & Nem. Fl. Jap. ed. 2. 1535.

NOM. JAP. *Karafuto-rakkyo*.

HAB. *Southern Saghalien*. Ushoro.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Manchuria, Dahuria, Siberia and E. Europe.

**633. *Allium strictum*** Schrad. Hort. Goett. t. 1; Kunth, Enum. Pl. IV. 419; Ledeb. Fl. Ross. IV. 178; Rgl. et Til. Fl. Ajan. 123; Rgl. Monogr. All. 164; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 22, in Trans. Sapporo Nat. Hist. Soc. V. 71; Kudo, Fl. Paramushir, 90, et Rep. Veg. N. Saghal. 82; Mak. & Nem. Fl. Jap. ed. 2. 1537; Hult. Fl. Kamtch. I. 237; Tatewaki, Pl. Isl. Alaid, 158.

*Allium lineare* Kawakami, in Tokyo Bot. Mag. XIV. 107; Yabe et Yendo, ibidem XVIII. (177); Matsum. Ind. Pl. Jap. II. 1: 189, p. p.

NOM. JAP. *Miyama-rakkyo*.

HAB. *Yezo*. Iburi, Ishikari, Rishiri.

*Kuriles*. Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Ushoro.

*Northern Saghalien*. Tim, Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Amur, Manchuria, Kamtchatka, Siberia, Persia, Asia Minor, Caucasus and Europe.

**634. *Allium splendens*** Willd. ex Schult. Syst. VII. 1025; Kunth, Enum. Pl. IV. 420; Ledeb. Fl. Ross. IV. 179; Rgl. All. Monogr. 168; Korsh. Pl. Amur. 402; Nakai, Fl. Korea. II. 261; Miyabe & Miyake, Fl. Saghal. 472; Miyabe & Kudo, Mater. Fl. Hokkaido n. 23, in Trans. Sapporo Nat. Hist. Soc. V. 71; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 82; Mak. & Nem. Fl. Jap. ed. 2. 1537.

*Allium lineare* Matsum. Ind. Pl. Jap. II. 1: 189, p. p.; Takeda, Fl.

Shikotan, 489; Kom. Fl. Penins. Kamtsch. I. 296, non L.

NOM. JAP. *Chishima-rakkyo*.

HAB. *Yezo*. Ishikari, Kitami, Tokachi, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu.

*Southern Saghalien*. Odomari, Mauka, Toyohara, Motodomari.

*Northern Saghalien*. Alexandrowsk, Tim, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, Yezo, Korea, Manchuria, Siberia and Kamtchatka.

**635. *Allium odoratum*** L. Mant. 62; Regel, All. Monogr. 175; Fr. et Sav. Enum. Pl. Jap. II. 78; Matsum. Ind. Pl. Jap. II. 1: 190; Miyabe & Miyake, Fl. Saghal. 474; Mak. & Nem. Fl. Jap. ed. 2. 1536.

*Allium chinense* Maxim. Prim. Fl. Amur. 284.

*Allium yezoense* Nakai, in Tokyo Bot. Mag. XXXVI. 117; Mak. & Nem. Fl. Jap. ed. 2. 1537.

NOM. JAP. *Nira*.

HAB. *Yezo*. Oshima, Shiribeshi, Ishikari, (naturalized from Honshu).

*Southern Saghalien*. Mauka, (naturalized from Honshu or Manchuria).

DISTRIB. Saghalien, Yezo, Honshu, Kyushu, Liukiu, Formosa, Korea, Manchuria, China, India, Siberia and Europe.

**636. *Allium victorialis*** L. Sp. Pl. ed. 1, 295; Ledeb. Fl. Ross. IV. 184; Kunth, Enum. Pl. IV. 432; Rgl. et Til. Fl. Ajan. 123; A. Gray, Bot. Jap. 416; Maxim. Prim. Fl. Amur. 283; Miq. Prol. Fl. Jap. 318; Fr. Schm. Fl. Sachal. 187 et Fl. Amg.-Burej. 65; Rgl. All. Monogr. 170; Fr. et Sav. Enum. Pl. Jap. II. 78; Franch. Pl. David. 306; Miyabe, Fl. Kuril. 264; Matsudaira, in Tokyo Bot. Mag. IX. 470; Hook. f. Fl. Brit. Ind. VI. 342; Kawakami, in Tokyo Bot. Mag. XIV. 107; Diels, Fl. C. China, 242; Kom. Fl. Mansh. I. 444; Forb. et Hemsl. Ind. Fl. Sin. III. 126; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 116; Matsum. Ind. Pl. Jap. II. 1: 191; Koidz. Pl. Sachal. 36; Nakai, Fl. Korea. II. 261; Miyabe & Miyake, Fl. Saghal. 473; Kudo, Fl. Paramushir, 90, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 82; Printz, Veg. Sib. Mong. Front. 181; Mak. & Nem. Fl. Jap. ed. 2. 1537; Kom. Fl. Penins. Kamtsch. I. 295.

subsp. ***platyphyllum*** Hult. Fl. Kamtch. I. 239.

*Allium ellipticum* Wall. Cat. n. 5069; Kunth, Enum. Pl. IV. 456.

*Allium Victorialis* L. var. *asiaticum* Nakai, Rep. Veg. Kamikochi, 35, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 76; Tatewaki, Veg. Mt. Apoi, 73.

NOM. JAP. *Gyoja-ninniku*, *Kitobiru*.

NOM. AINU. *Pukusa*, *Huraruikina*, *Kito*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Rishiri, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Etorofu, Urup, Brat Chirnoef, Shimushir, Ketoi, RASHUWA, Matsuwa, Paramushir.

*Southern Saghalien*. Todomoshiri, Odomari, Honto, Tomarioro, Ushoro, Toyohara, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Schmidt-Pen.

DISTRIB. *sp.* Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Amur, China, Mongolia, Siberia, Kamtchatka, Caucasus, Europe and North America.

**637. *Allium monanthum*** Maxim. in Mél. Biol. XII. 554; Kom. Fl. Mansh. I. 451; Matsum. Ind. Pl. Jap. II. 1: 190; Nakai, Fl. Korea. II. 262 et in Matsum. Icon. Pl. Koishikav. I. 2: 35, *t.* 18; Mak. & Nem. Fl. Jap. ed. 2. 1536.

NOM. JAP. *Himebiru*, *Hime-amana*, *Himenira*.

HAB. *Yezo*. Ishikari.

DISTRIB. Yezo, Honshu, Korea and Manchuria.

### ***Cardiocrinum*** Makino

**638. *Cardiocrinum Glehni*** Makino, in Tokyo Bot. Mag. XXVII. 125; Mak. et Nem. Fl. Jap. ed. 2. 1541; Tatewaki, Veg. Mt. Apoi, 73; Nakai, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 77.

*Lilium Glehni* Fr. Schm. Fl. Saghal. 187; Fr. et Sav. Enum. Pl. Jap. II. 203; Matsum. Ind. Pl. Jap. II. 1: 203; Miyabe & Miyake, Fl. Saghal. 475; Kudo, Rep. Veg. N. Saghal. 83.

*Lilium cordifolium* Baker, in Jour. Linn. Soc. XIV. 227; Bot. Mag. *t.* 6337; Elwes, Monogr. Lil. *t.* 1; Miyabe, Fl. Kuril. 264; Engl. in Engl. u. Pr. Nat. Pfl.-fam. II. 5: 66, p. p.; Wils. Lil. E. Asia, 98, non Thunb.

NOM. JAP. *O-ubayuri*, *Yezo-ubayuri*, *Umbairo*.

NOM. AINU. *Turep*.

HAB. *Yezo*. Oshima, Okushiri, Iburi, Hidaka, Tokachi, Ishikari, Kushiro.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Honto.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo and Honshu.

### *Lilium* L.

**639. *Lilium lancifolium*** Thunb. in Trans. Linn. Soc. II. 333, et in Mém. Acad. Sci. St. Pétersb. III. 201, *pl. 3, f. 1*; Koidz. in Tokyo Bot. Mag. XXXIX. 307; Mak. & Nem. Fl. Jap. ed. 2. 1553.

*Lilium tigrinum* Ker-Gawl. in Bot. Mag. *t. 1237*; Kunth, Enum. Pl. IV. 259; Baker, in Jour. Linn. Soc. Bot. XIV. 233; Miq. Prol. Fl. Jap. 320; Fr. et Sav. Enum. Pl. Jap. II. 66; Franch. Pl. David. 307; Elwes, Monogr. Lil. *t. 38*; A. F. Wugh, in Bot. Gaz. XXVII. 253; Kom. Fl. Mansh. I. 452; Palib. Consp. Fl. Korea. III. 13; Diels, Fl. C. China, 243; Forb. et Hemsl. Ind. Fl. Sin. III. 135; Yabe, in Tokyo Bot. Mag. XVII. 134; Matsum. Ind. Pl. Jap. II. 1: 205; Nakai, Fl. Korea. II. 257, et in Tokyo Bot. Mag. XXIV. (325); Wilson, Lil. N. Asia, 73; Mak. & Nem. Fl. Jap. 1267.

NOM. JAP. *Oni-yuri*.

HAB. *Yezo*. Oshima, Iburi, Hidaka.

DISTRIB. Yezo, Honshu, Kyushu, Korea, Manchuria, China and Cochin China.

**640. *Lilium dauricum*** Ker-Gawl. in Curtis Bot. Mag. XXX. *t. 1210*, in nota; Kunth, Enum. Pl. VI. 264; Baker, in Jour. Linn. Soc. Bot. XIV. 238; Fr. Schm. Fl. Sachal. 86; Fr. et Sav. Enum. Pl. Jap. II. 70; Elwes, Monogr. Lil. *t. 21*; Miyabe, Fl. Kuril. 264; Kom. Fl. Mansh. I. 455; Matsum. Ind. Pl. Jap. II. 1: 203; Koidz. Pl. Sachal. 39; Nakai, Fl. Korea. II. 259; Takeda, Fl. Shikotan, 489; Miyabe & Miyake, Fl. Saghal. 476; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 83; Wilson, Lil. E. Asia, 50; Mak. & Nem. Fl. Jap. ed. 2. 1552; Hult. Fl. Kamtch. I. 241; Kom. Fl. Penins. Kamtsch. I. 299.

*Lilium spectabile* Link, Enum. Pl. I. 321; Kunth, Enum. Pl. IV. 676; Ledeb. Fl. Ross. IV. 151; Trautv. et Mey. Fl. Ochot. 93; Rgl. et Til. Fl. Ajan. 123; Rgl. Tent. Fl. Ussuri. 151; A. Gray, Bot. Jap. 415; Miq. Prol. Fl. Jap. 320.

NOM. JAP. *Yezo-sukashiyuri*.

NOM. AINU. *Masara-orumbe*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup.

*Southern Saghalien*. Odomari, Mauka, Tomarioro, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Korea, Manchuria, Mongolia, Amur, Eastwards from Altai Mts. to Ochotsk, Ajan and Kamtchatka.

**641. *Lilium auratum*** Lindl. in Gardn. Chron. (1862) 644; Hook. f. in Bot. Mag. LXXXVIII. t. 5338; Miq. Prol. Fl. Jap. 320; Fr. et Sav. Enum. Pl. Jap. II. 68; Elwes, Monogr. *Lilium*, t. 15; Matsum. Ind. Pl. Jap. II. 1: 201; Wilson, Lilies E. Asia, 46; Mak. & Nem. Fl. Jap. ed. 2. 1551.

NOM. JAP. *Yama-yuri*, *Ryori-yuri*, *Eizan-yuri*, *Horaiji-yuri*.

HAB. *Yezo*. Oshima, at Fukuyama, (naturalized from Honshu).

*Southern Saghalien*. Toyohara, at mountain path betw. Toyohara and Mauka, (naturalized from Honshu).

DISTRIB. Saghalien, Yezo and Honshu.

**642. *Lilium medeoloides*** A. Gray, Pl. Jap. 415; Miq. Prol. Fl. Jap. 320; Fr. et Sav. Enum. Pl. Jap. II. 63, excl. var.  $\beta$ .; Baker, in Jour. Linn. Soc. Bot. XIV. 236; Forb. et Hemsl. Ind. Fl. Sin. III. 132; Matsum. Ind. Pl. Jap. II. 1: 205; Koidz. Pl. Sachal. 40; Nakai, Fl. Korea. II. 256, et in Tokyo Bot. Mag. XXXI. 7; Takeda, Fl. Shikotan, 489; Miyabe & Miyake, Fl. Saghal. 477; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 83; Wilson, Lilies E. Asia, 90; Hult. Fl. Kamtch. I. 242; Tatewaki, Veg. Mt. Apoi, 73; Mak. & Nem. Fl. Jap. ed. 2. 1554.

*Lilium avenaceum* Fisch. apud Maxim. in Rgl. Gartenfl. XIV. 290, t. 485; Fr. Schm. Fl. Sachal. 186; Baker, l. c. 246; Miyabe, Fl. Kuril. 265;

Kawakami, in Tokyo Bot. Mag. XIV. 107; Matsum. l. c. 202; Nakai, Veg. Mt. Apoi, 77; Kom. Fl. Penins. Kamtsch. I. 298.

NOM. JAP. *Kurumayuri*.

NOM. AINU. *Niyokai, Nino-okai*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, RASHUWA, Paramushir.

*Southern Saghalien*. Odomari, Mauka, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, China and Kamtchatka.

form. **kurilense** Kudo, Fl. Paramushir, 91; Tatewaki, Pl. Is. Alaid, 158.

*Lilium medeoloides* A. Gray, var. *kurilense* Nakai, in Tokyo Bot. Mag. XXXI. 8; Mak. & Nem. l. c. 1554.

*Lilium avenaceum* Nakai, Veg. Mt. Apoi, 77, non Fisch.

NOM. JAP. *Hosoba-kurumayuri, Chishima-kurumayuri*.

HAB. *Yezo*. Hidaka, Rishiri, Kushiro.

*Kuriles*. Shikotan, Etorofu, Paramushir, Shumushu, Alaid.

DISTRIB. Endemic form.

**643. *Lilium Hansonii*** Leichtin ex Baker, in Jour. Linn. Soc. Bot. XIV. 245; Elwes, Monog. *Lilium*, t. 34; Kom. Fl. Mansh. I. 457; Matsum. Ind. Pl. Jap. II. 1: 203; Miyabe & Miyake, Fl. Saghal. 477; J. H. Tilson, in Bailey, Stand. Cycl. IV. 1873, f. 2172; Nakai, in Tokyo Bot. Mag. XXXI. 6; Wilson, Lil. E. Asia, 91; Mak. & Nem. Fl. Jap. ed. 2. 1553.

*Lilium avenaceum* var. *flore aurantiaco suaveolente* Maxim. in Rgl. Gartenfl. XIV. 291.

*Lilium Martagon* Maxim. Prim. Fl. Amur. 280; Korsh. Pl. Amur. 401, non L.

*Lilium medeoloides* var. *obovata* Fr. et Sav. Enum. Pl. Jap. II. 63.

NOM. JAP. *Takeshima-yuri*.

HAB. *Yezo*. Oshima, Okushiri, Ishikari, Kushiro.

*Southern Saghalien.* Tomarioro, Shikka.

DISTRIB. Saghalien, Yezo, Korea, Manchuria and Amur.

### *Fritillaria* L.

**644. *Fritillaria camschatcensis*** Ker-Gawl. in Bot. Mag. XXX. *t.* 1216; Kunth, Enum. Pl. IV. 254; Ledeb. Fl. Ross. IV. 147; Maxim. Prim. Fl. Amur. 279; Fr. Schm. Fl. Sachal. 186; Fr. et Sav. Enum. Pl. Jap. II. 62; Miyabe, Fl. Kuril. 265; Kom. Fl. Mansh. I. 404; Forb. et Hemsl. Ind. Fl. Sin. III. 136; Matsum. Ind. Pl. Jap. II. 1: 196; Koidz. Pl. Sachal. 40; Abrams, Ill. Fl. Pacif. St. I. 423; Takeda, in Tokyo Bot. Mag. XXIV. 316, et Fl. Shikotan, 490; Miyabe & Miyake, Fl. Saghal. 478; Kudo, Fl. Paramushir, 91, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 84; Mak. & Nem. Fl. Jap. ed. 2. 1546; Hult. Fl. Kamtch. I. 243; Kom. Fl. Penins. Kamtsch. I. 300; Tatewaki, Pl. Is. Alaid, 159, et Veg. Mt. Apoi, 73; Nakai, Veg. Mt. Apoi, 77.

*Lilium camtschatcense* L. Sp. Pl. ed. 1, 303.

*Fritillaria kamtschatcensis* Fisch. ex Hook. Fl. Bor. Amer. II. 181; Trautv. et Mey. Fl. Ochot. 93; Rgl. et Til. Fl. Ajan. 123; Baker, in Jour. Linn. Soc. Bot. XIV. 273.

NOM. JAP. *Kuroyuri*.

NOM. AINU. *Anrakoro*.

HAB. *Yezo*. Iburi, Hidaka, Ishikari, Kitami, Tokachi, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, Rashua, Shashikotan, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Odomari, Honto, Mauka, Toyohara, Shikka.

*Northern Saghalien*. Alexandrowsk, Chaiwo, Pronge-Baikal, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Manchuria, China, Amur, Eastern Siberia, Kamtchatka and N.W. portion of North America.

### *Erythronium* L.

**645. *Erythronium japonicum*** Makino, in Iinuma & Makino, Somoku-Dzusesetsu, ed. 3. I. 441, *pl.* 330; Mak. & Nem. Fl. Jap. ed. 2. 1545.

*Erythronium dens-canis* L. var. *japonicum* Bak. in Journ. Linn. Soc. Bot. XIV. 297; Matsum. Ind. Pl. Jap. II. 1: 195.

*Erythronium grandiflorum* Miq. Prol. Fl. Jap. 322; Fr. et Sav. Enum. Pl. Jap. II. 59, non Pursh.

NOM. JAP. *Katakuri, Katakoyuri.*

NOM. AINU. *Eshkerimrim.*

HAB. *Yezo.* Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Yagishiri.

*Southern Saghalien.* Toyohara.

DISTRIB. Saghalien, Yezo and Honshu.

### ***Lloydia*** Salisb.

**646. *Lloydia triflora*** Baker, in Jour. Linn. Soc. Bot. XIV. 300; Engl. u. Pr. Nat. Pfl.-fam. II. 5: 63, et Nachtrag. II. II. 5: 11; Forb. et Hemsl. Ind. Fl. Sin. III. 140; Kom. Fl. Mansh. I. 464; Matsum. Ind. Pl. Jap. II. 1: 206; Miyabe & Miyake, Fl. Saghal. 479; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 20, in Trans. Sapporo Nat. Hist. Soc. V. 70; Printz, Veg. Sib. Mong. Front. 180; Kudo, Rep. Veg. N. Saghal. 84; Mak. & Nem. Fl. Jap. ed. 2. 1557; Hult. Fl. Kamtch. I. 246; Kom. Fl. Pen. Kamtsch. I. 293.

*Ornithogalum triflorum* Ledeb. in Mém. Acad. Pétersb. V. 529.

*Gagea triflora* Roem. et Sch. Syst. Veg. VII. 529; Kunth, Enum. Pl. IV. 242; Ledeb. Fl. Ross. IV. 141; Maxim. Prim. Fl. Amur. 278; Fr. Schm. Fl. Sachal. 186; Fr. et Sav. Enum. Pl. Jap. II. 61; Yabe et Yendo, Fl. Shumushu, (177).

NOM. JAP. *Hosoba-no-amana.*

HAB. *Yezo.* Oshima, Iburi, Hidaka, Ishikari, Rebun, Tokachi, Kushiro. *Kuriles.* Shumushu.

*Southern Saghalien.* Todomoshiri, Odomari, Shikka.

*Northern Saghalien.* Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kyushu, Korea, China, Manchuria, Siberia and Kamtchatka.

**647. *Lloydia alpina*** Salisb. in Trans. Hort. Soc. I. 328; Forb. et Hemsl. Ind. Fl. Sin. III. 139; Matsum. Ind. Pl. Jap. II. 1: 206.

*Lloydia serotina* Reichb. Fl. Germ. Exc. 102; Kunth, Enum. Pl. IV. 244; Ledeb. Fl. Ross. IV. 144; Hook. f. Fl. Brit. Ind. VI. 354; F. Kurtz, in Engl. Bot. Jahrb. XIX. 457; Kawakami, in Tokyo Bot. Mag. XIV. 107; Yabe, in Tokyo Bot. Mag. XVII. 18; Yabe & Yendo, *ibidem* XVIII. (177); Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 94; Hegi, Ill. Fl. Mitteleurop. II. 213; Koidz. in Tokyo Bot. Mag. XXV. 205; Miyabe & Miyake, Fl. Saghal. 479; Price and Simpson, in Jour. Linn. Soc. Bot. XLI. 447; Kudo, Fl. Paramushir, 92; Hult. Fl. Kamtch. I. 245; Kom. Fl. Pen. Kamtsch. I. 294; Tatewaki, Pl. Is. Alaid, 159; Nakai, Veg. Daisetsusan Mts. 60; Mak. & Nem. Fl. Jap. ed. 2. 1557.

*Bulbocodium serotinum* L. Sp. Pl. ed. 1, 294.

*Nectarobothrium striatum* Ledeb. Fl. Alt. II. 36.

NOM. JAP. *Chishima-amana*.

HAB. *Yezo*. Ishikari, Rishiri, Hidaka.

*Kuriles*. Urup, Shimushir, Ketoi, Onnekotan, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Odomari, Tomarioro, Toyohara, Motodomari.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, China, Mongolia, Himalaya, Tibet, Siberia, Tschuktch, Kamtchatka, Europe and North America.

### *Scilla* L.

648. *Scilla Thunbergii* Miyabe et Kudo, Mater. Fl. Hokkaido n. 127, in Trans. Sapporo Nat. Hist. Soc. VIII. 3; Tatewaki, Veg. Mt. Apoi, 73; Mak. & Nem. Fl. Jap. ed. 2. 1565.

*Ornithogalum japonicum* Thunb. in Nova Acta Reg. Soc. Sci. Upsal. III. 209, et Fl. Jap. 137.

*Barnardia japonica* Roem. et Schult. Syst. Veg. VII. 555; Kunth, Enum. Pl. IV. 337; Miq. Prol. Fl. Jap. 318; Fr. et Sav. Enum. Pl. Jap. II. 75.

*Scilla japonica* Baker, in Jour. Linn. Soc. Bot. XIII. 233; Kom. Fl. Mansh. I. 465; Forb. et Hemsl. Ind. Fl. Sin. III. 127; Matsum. Ind. Pl. Jap. II. 1: 212; Mak. & Nem. Fl. Jap. 1276, non Thunb.

*Scilla chinensis* Nakai, Veg. Mt. Apoi, 78, non Benth.

NOM. JAP. *Tsurubo*, *Sandaigasa*.

NOM. AINU. *Seta-toma*.

HAB. *Yezo*. Oshima, Hidaka, Ishikari.

DISTRIB. *Yezo*, Honshu, Kyushu, Liukiu, Formosa, Korea and Manchuria.

### *Asparagus* L.

**649. *Asparagus schoberioides*** Kunth, Enum. Pl. V. 70; Miq. Prol. Fl. Jap. 315; Baker, in Jour. Linn. Soc. Bot. XIV. 604; Fr. et Sav. Enum. Pl. Jap. II. 58; Franch. Pl. David. 301; Korsh. Pl. Amur. 402; Kawakami, in Tokyo Bot. Mag. XIV. 107; Kom. Fl. Mansh. I. 467; Matsum. Ind. Pl. Jap. II. 1: 192; Nakai, Fl. Korea. II. 242; Miyabe & Miyake, Fl. Saghal. 462; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 84; Mak. & Nem. Fl. Jap. ed. 2. 1540.

• *Asparagus Wrightii* A. Gray, Bot. Jap. 413.

*Asparagus parviflorus* Turcz. Pl. Cat. Baical. Dah. n. 1155; Ledeb. Fl. Ross. IV. 199; Rgl. Tent. Fl. Ussuri. 153.

*Asparagus Sieboldii* Maxim. Prim. Fl. Amur. 287; Fr. Schm. Fl. Sachal. 188.

NOM. JAP. *Kijikakushi*, *Sochiku*.

NOM. AINU. *Raikina*.

HAB. *Yezo*. Oshima, Ishikari, Kitami, Kushiro.

*Southern Saghalien*. Mauka, Ushoro.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, *Yezo*, Honshu, Shikoku, Kyushu, Formosa, Korea, Manchuria, Ussuri and Dahuria.

var. **subsetaceus** Franch. Pl. David. I. 302; Wright, in Journ. Linn. Soc. XXXVI. 103; Mak. & Nem. l. c.; Nakai, Veg. Mt. Apoi, 76.

NOM. JAP. *Hosoba-kijikakushi*.

HAB. *Yezo*. Iburi, Hidaka, Ishikari, Tokachi, Rishiri.

DISTRIB. *Yezo*, Honshu and China.

**650. *Asparagus lucidus*** Lindl. in Bot. Mag. (1844) Misc. n. 36; Kunth, Enum. Pl. V. 72; Miq. Prol. Fl. Jap. 315; Baker, in Jour. Linn. Soc. Bot. XIV. 605; Fr. et Sav. Enum. Pl. Jap. II. 58; Benth. Fl. Hongk. 371; Palib. Consp. Fl. Korea. III. 9; Diels, Fl. C. China, 246; Forb. et Hemsl.

Ind. Fl. Sin. III. 102; Matsum. Ind. Pl. Jap. II. 1: 191; Matsum. et Hayata, Enum. Pl. Formos. 437; Nakai, Fl. Korea. II. 242; Mak. & Nem. Fl. Jap. ed. 2. 1539.

NOM. JAP. *Temmondo*, *Kusasugikazura*.

HAB. *Yezo*. Oshima. (Introduced from Honshu).

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Liukiu, Formosa, Korea and China.

### *Clintonia* Rafin.

**651. *Clintonia udensis*** Trautv. et Mey. Fl. Ochot. 92, *t.* 30; Rgl. et Til. Fl. Ajan. 123; Miq. Prol. Fl. Jap. 149; Maxim. Prim. Fl. Amur. 278; Baker, in Jour. Linn. Soc. Bot. XIV. 585; Fr. Schm. Fl. Sachal. 186; Fr. et Sav. Enum. Pl. Jap. II. 50; Franch. Pl. David. 309; Miyabe, Fl. Kuril. 265; Kom. Fl. Mansh. I. 468; Diels, Fl. C. China, 246; Forb. et Hemsl. Ind. Fl. Sin. III. 144; Matsum. Ind. Pl. Jap. II. 1: 193; Koidz. Pl. Sachal. 37; Nakai, Fl. Korea. II. 240; Takeda, Fl. Shikotan, 490; Miyabe & Miyake, Fl. Saghal. 467; Kudo, Rep. Veg. N. Saghal. 85; Tatewaki, Veg. Akan, 54, et Veg. Mt. Apoi, 74; Mak. & Nem. Fl. Jap. ed. 2. 1542; Nakai, Veg. Mt. Apoi, 77.

*Clintonia alpina* Kunth var. *udensis* Macbride, in Contrib. Gray Herb. LVI. 18.

NOM. JAP. *Tsubame-omoto*, *Tochiso*, *Sasanindo*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rebun, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu.

*Southern Saghalien*. Odomari, Honto, Mauka, Tomarioro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Chaiwo.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Korea, Manchuria, Mongolia, China, Amur, Ussuri, Ochotsk and Ajan.

### *Smilacina* Desf.

**652. *Smilacina davurica*** Turcz. Cat. Baic. Dah. n. 1129; Ledeb. Fl. Ross. IV. 128; Rgl. Tent. Fl. Ussuri. 150; Maxim. in Mél. Biol. XI. 856;

Korsh. Pl. Amur. 400; Kom. Fl. Mansh. I. 470; Nakai, Fl. Korea. II. 244; Miyabe & Miyake, Fl. Saghal. 465; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 85; Mak. & Nem. Fl. Jap. ed. 2. 1565.

*Astranthemum dahuricum* Kunth, Enum. Pl. V. 153; Trautv. et Mey. Fl. Ochot. 92; Maxim. Prim. Fl. Amur. 277; Fr. Schm. Fl. Amg.-Burej. 64, et Fl. Sachal. 185.

*Tovaria davurica* Baker, in Jour. Linn. Soc. XIV. 567.

NOM. JAP. *Karafuto-yukizasa*.

DISTRIB. *Southern Saghalien*. Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi.

DISTRIB. Saghalien, Korea, Manchuria, Amur, Ochotsk and Dahuria.

**653. *Smilacina yezoensis*** Fr. et Sav. Enum. Pl. Jap. II. 523; Maxim. in Mél. Biol. XI. 857; Matsum. Ind. Pl. Jap. II. 1: 212; Nakai, Veg. Kamikochi, 36, 43; Mak. & Nem. Fl. Jap. ed. 2. 1565.

*Smilacina davurica* Fr. et Sav. l. c. 53, non Turcz.

*Vagnera yezoensis* Makino, in Journ. Jap. Bot. VI. 31.

NOM. JAP. *Kuro-yukizasa*, *Hiroha-yukizasa*.

HAB. *Yezo*. (ex Savatier).

DISTRIB. *Yezo* and Honshu.

**654. *Smilacina japonica*** A. Gray, Pl. Jap. 321, et Bot. Jap. 414; Miq. Prol. Fl. Jap. 313; Fr. et Sav. Enum. Pl. Jap. II. 53; Maxim. in Mél. Biol. XI. 857; Palib. Consp. Fl. Korea. III. 11; Diels, Fl. C. China, 246; Kom. Fl. Mansh. I. 471; Matsum. Ind. Pl. Jap. II. 1: 212; Nakai, Fl. Korea. II. 243; Mak. & Nem. Fl. Jap. ed. 2. 1565; Nakai, Veg. Mt. Apoi, 78.

*Tovaria japonica* Baker, in Jour. Linn. Soc. Bot. XIV. 470; Forb. et Hemsl. Ind. Fl. Sin. III. 110.

var. **typica** Maxim. l. c.

NOM. JAP. *Yukizasa*.

NOM. AINU. *Pepero*, *Keperora*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari, Teshio, Rishiri.

var. **mandshurica** Maxim. l. c.

NOM. JAP. *Oba-yukizasa*.

NOM. AINU. *Pepero, Keperora*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Tokachi.

DISTRIB. *sp.* *Yezo*, Honshu, Shikoku, Kyushu, Korea, Manchuria, Amur and China.

**655. *Smilacina trinervis* Miyabe et Kudo, sp. nov.**

Caulis teres, basi rectus, robustus, striatus, hispidus, sulcatus, supra medium foliatus, flexuosus. Folia ovato-oblonga vel ovata, 15–16 cm longa, 8–10 cm lata, apice abrupte-acuminata, basi rotundata, breviter petiolata, petiolis basi semiamplexicaulibus, 2–3 cm longis, supra glabriusculis, margine paucissime ciliata, subtus puberula, multinervosa, nervis 13–15 prominentibus. Panicula ambitu rhomboidea, 14 cm longa, 8 cm lata, supra folium supremum pedunculis 13 cm longis insidens, ubique dense hirta, pedunculis lateralibus patentibus multifloriferis, pedicellis alternatis, brevibus, hirtis. Flores albi, perianthi lobis ellipticis apice obtusis, 3-nervis. Stamina periantho breviora, tamen stylum superatia.

NOM. JAP. *Oni-yukizasa*.

HAB. *Yezo*. Ishikari.

DISTRIB. Endemic plant.

A very striking species, allied to *Smilacina japonica* A. Gray, having the 3-nerved perianth-lobes and large broad leaves.

**656. *Smilacina trifolia* Desf. in Ann. Mus. Paris, IX. 52; Ledeb. Fl. Ross. IV. 128; Rgl. et Til. Fl. Ajan. 123; Maxim. in Mél. Biol. XI. 858; Kom. Fl. Mansh. I. 473; Nakai, Fl. Korea. II. 243; Miyabe & Miyake, Fl. Saghal. 465, *pl.* 12, *f.* 2–3; Kudo, Contr. Fl. N. Saghal. 27, et Rep. Veg. N. Saghal. 85; Mak. & Nem. Fl. Jap. ed. 2. 1565.**

*Convallaria trifolia* L. Sp. Pl. ed. 1, 316.

*Tovaria trifolia* Neck. Elem. Bot. III. 190; Baker, in Jour. Linn. Soc. Bot. XIV. 565.

*Asteranthemum trifoliatum* Kunth, Enum. Pl. V. 153; Trautv. et Mey. Fl. Ochot. 92; Maxim. Prim. Fl. Amur. 277; Fr. Schm. Fl. Saghal. 185.

*Vagnera trifolia* Morong, in Mem. Torr. Bot. Club V. 114; Britt. & Br. III. Fl. I. 430.

NOM. JAP. *Tonakaiso*.

HAB. *Southern Saghalien.* Shikka.

*Northern Saghalien.* Alexandrowsk, Tim, Tymi, Nyiwo.

DISTRIB. Saghalien, Korea, Manchuria, Amur, Ajan, Dahuria, Baical, Altai and North America.

*Majanthemum* Web.

**657. *Majanthemum bifolium*** F. W. Schmidt, in Fl. Boem. Inch. Cent. IV. 55; DC. Fl. Franc. III. 177; Kunth, Enum. Pl. V. 147; Ledeb. Fl. Alt. IV. 333; Trautv. et Mey. Fl. Ochot. 91; Maxim. Prim. Fl. Amur. 276; Fr. Schm. Fl. Amg.-Burej. 64; Korsh. Pl. Amur. 400; Baker, in Jour. Linn. Soc. Bot. XIV. 563; Kom. Fl. Mansh. I. 473; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 304; Nakai, Fl. Korea. II. 244; Koidz. Pl. Sachal. 35; Miyabe & Miyake, Fl. Saghal. 466; Kudo, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 86; Hult. Fl. Kamtch. I. 247; Kom. Fl. Kamtsch. I. 302.

*Convallaria bifolia* L. Sp. Pl. ed. 1, 316.

*Smilacina bifolia* Desf. in Ann. Mus. Par. IX. 54; Ledeb. Fl. Ross. IV. 127; Rgl. Tent. Fl. Ussuri. 149.

*Maianthemum Convallaria* Wigg. Prim. Fl. Holsat. 15; Forb. et Heml. Ind. Fl. Sin. III. 112.

NOM. JAP. *Hime-maizuruso. Nikko-maizuruso.*

HAB. *Southern Saghalien.* Odomari, Toyohara, Shikka.

*Northern Saghalien.* Tim, Tymi.

DISTRIB. Saghalien, Honshu, Korea, Manchuria, N. China, Amur, Ochotsk, Kamtchatka, Siberia and Europe.

**658. *Majanthemum dilatatum*** Nels. et Machr. in Bot. Mag. LXI. 30; Nakai, in Tokyo Bot. Mag. XXXVIII. (180); Hult. Fl. Kamtch. I. 247; Tatewaki, Veg. Akan, 54, et Pl. Is. Alaid, 159; Nakai, Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1557.

*Majanthemum bifolium* var. *dilatatum* Wood, in Proc. Acad. Sc. Philad. (1868) 154.

*Unifolium dilatatum* Howell, Fl. N. W. Am. I. 657.

*Convallaria foliis cordatis* L. var. *α. kamtschatica* Gmel. Fl. Sib. I. 36.

*Convallaria bifolia* L. var. *kamtschatica* Cham. in Linnaea, VI. 587.

*Smilacina bifolia* Desf.  $\beta$ . *kamtschatica* Ledeb. Fl. Ross. IV. 127; Fr. et Sav. Enum. Pl. Jap. II. 53.

*Majanthemum bifolium* var. *kamtschaticum* Trautv. et Mey. Fl. Ochot. 92; Maxim. Prim. Fl. Amur. 276; Fr. Schm. Fl. Sachal. 185; Miyabe, Fl. Kuril. 264; Matsudaira, in Tokyo Bot. Mag. IX. 470; Kawakami, ibidem XIV. 107; Koidz. Pl. Sachal. 36; Takeda, Fl. Shikotan, 480; Miyabe & Miyake, Fl. Saghal. 467; Jepson, Fl. W. Middle Calif. ed. 2. 109.

*Unifolium kamtschaticum* German, in Muhlenbergia, II. 376.

*Majanthemum kamtschaticum* Nakai, in Tokyo Bot. Mag. XXXI. 282.

*Majanthemum kamtschaticum* Gmel. emend., Kom. Fl. Penins. Kamtsch. I. 302.

*Majanthemum canadense* var. *kamtschaticum* Kudo, Fl. Paramushir, 92, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 86.

NOM. JAP. *O-maizuruso*.

NOM. AINU. *Kisarapeot*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, Ushishir, RASHUWA, MATSUWA, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Todomoshiri, Odomari, Rutoka, Honto, Mauka, Tomarioro, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi, Chaiwo, Prongebai, Oha, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Amur, Eastern Siberia, Kamtschatka and N. W. regions of North America.

### *Disporum* Salisb.

**659. *Disporum smilacinum*** A. Gray, Pl. Jap. 321, et Bot. Jap. 414; Miq. Prol. Fl. Jap. 311; Fr. et Sav. Enum. Pl. Jap. II. 52; Baker, in Jour. Linn. Soc. Bot. XIV. 590; Maxim. in M $\acute{e}$ l. Biol. XI. 858; Engl. et Maxim. in Engl. Bot. Jahrb. VI. 53; Miyabe, Fl. Kuril. 265; Nakai, Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1544.

*Disporum smilacinum* A. Gray, var. *album* Maxim. in M $\acute{e}$ l. Biol. XI.

858; Makino, in Tokyo Bot. Mag. XI. (282); Matsum. Ind. Pl. Jap. II. 1: 195.

NOM. JAP. *Chigo-yuri*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Tokachi, Kushiro.

*Kuriles*. Etorofu.

DISTRIB. Kuriles, Yezo, Honshu and Liukiu.

**660. *Disporum sessile*** Don, Prodr. 50; Kunth, Enum. Pl. IV. 208; A. Gray, Pl. Jap. 321, et Bot. Jap. 414; Miq. Prol. Fl. Jap. 311; Baker, in Jour. Linn. Soc. Bot. XIV. 589; Fr. et Sav. Enum. Pl. Jap. II. 51; Maxim. in M $\acute{e}$ l. Biol. XI. 860; Matsum. Ind. Pl. Jap. II. 1: 195; Miyabe & Miyake, Fl. Saghal. 469; Tatewaki, Veg. Akan, 55, et Veg. Mt. Apoi, 74; Nakai, Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1544.

*Uvularia sessilis* Thunb. Fl. Jap. 136.

NOM. JAP. *Hochakuso*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Kushiro.

*Southern Saghalien*. Todomoshiri.

DISTRIB. Saghalien, Yezo, Honshu, Kyushu and Liukiu.

### ***Streptopus*** L. C. Rich.

**661. *Streptopus amplexifolius*** DC. in Lam. et DC. Fl. Franc. III. 174; Spr. Syst. Veg. VII. 310; Cham. in Linnaea VI. 587; Hook. et Arn. in Beech. Voy. 118; Bong. V $\acute{e}$ g. Sitcha, 166; Kunth, Enum. Pl. IV. 205; Ledeb. Fl. Ross. IV. 122; A. Gray, Bot. Jap. 415; Maxim. Prim. Fl. Amur. 273; Miq. Prol. Fl. Jap. 310; Fr. Schm. Fl. Saghal. 185; Fr. et Sav. Enum. Pl. Jap. II. 51; Maxim. in M $\acute{e}$ l. Biol. XI. 855; Miyabe, Fl. Kuril. 263; Kom. Fl. Mansh. I. 476; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 305; Matsum. Ind. Pl. Jap. II. 1: 214; Abrams, Ill. Fl. Pac. St. I. 457; Miyabe & Miyake, Fl. Saghal. 464; Kudo, Fl. Paramushir 93, et Rep. Veg. N. Saghal. 87; Mak. & Nem. Fl. Jap. ed. 2. 1570; Hult. Fl. Kamtch. I. 250; Kom. Fl. Kamtsch. I 804; Tatewaki, in Jour. Fac. Agr. Hokk. Imp. Univ. XXIX. 4: 145, 181.

*Uvalaria amplexifolia* L. Sp. Pl. ed. 1, 304.

*Streptopus amplexicaulis* Baker, in Jour. Linn. Soc. Bot. XIV. 591.

NOM. JAP. *Oba-takeshimaran*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Ishikari, Teshio, Kitami, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Etorofu, Urup, Shimushir, Ketoi, RASHUWA, Matuwa, Paramushir.

*Southern Saghalien*. Odomari, Toyohara, Motodomari.

*Northern Saghalien*. Alexandrowsk, Oha, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, China, Manchuria, Kamtchatka, Europe and North America.

var. **papillatus** Ohwi, in Tokyo Bot. Mag. XLV. 185; Mek. & Nem. l. c. 1570.

NOM. JAP. *Arage-obatakeshimaran*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Tokachi.

*Kuriles*. Kunashiri, Urup, Paramushir.

*Southern Saghalien*. Toyohara.

DISTRIB. Saghalien, Yezo, Kuriles, Honshu and Kamtchatka, (Petro-pavlovski, July 12, 1907, N. Yokoyama).

**662. *Streptopus ajanensis*** Tiling, in Rgl. Ajan. no. 281; Maxim. in Mém. Biol. XI. 855; Kom. Fl. Mansh. I. 475; Miyabe & Miyake, Fl. Saghal. 464.

*Smilacina streptopoides* Ledeb. Fl. Ross. IV. 128.

*Hektorima dichotoma* Trautv. et Mey. Fl. Ochot. 91, non Raf.

*Kruhsea Tilingiana* Rgl. in Rgl. et Til. Fl. Ajan. 122; Maxim. Prim. Fl. Amur. 278; Fr. Schm. Fl. Amg.-Burej. 64; Baker, in Jour. Linn. Soc. Bot. XIV. 593.

*Streptopus ajanensis* Til. var. *japonica* Kawakami, in Tokyo Bot. Mag. XII. (268), non Maxim.

*Streptopus* sp. Kawakami, in Tokyo Bot. Mag. XIV. 107.

*Streptopus streptopoides* Koidz. in Matsum. Icon. Pl. Koishik. I. 107, pl. 54, p. p.

NOM. JAP. *Hime-takeshimaran*.

HAB. *Yezo*. Shiribeshi, Ishikari, Rishiri, Hidaka, Tokachi, Kushiro.  
*Southern Saghalien*. Ushoro, Motodomari.

DISTRIB. Saghalien, Yezo, Honshu, Korea, Manchuria, Amur, Ajan  
and Sitcha.

**663. *Streptopus japonicus*** Ohwi, in Tokyo Bot. Mag. XLV. 189;  
Mak. & Nem. Fl. Jap. ed. 2. 1570.

*Streptopus ajanensis* Til. var. *japonica* Maxim. in Mél. Biol. XI. 856;  
Mak. & Nem. Fl. Jap. 1280.

NOM. JAP. *Takeshima-ran*.

HAB. *Yezo*. Kitami.

DISTRIB. Yezo and Honshu.

### *Polygonatum* Tourn.

**664. *Polygonatum involucratum*** Maxim. in Mél. Biol. XI. 844;  
Miyabe & Kudo, Mater. Fl. Hokkaido n. 114, in Trans. Sapporo Nat. Hist.  
Soc. VII. 30; Mak. & Nem. Fl. Jap. ed. 2. 1562.

*Periballanthus involucratus* Fr. et Sav. Enum. Pl. Jap. II. 524.

*Polygonatum Periballanthus* Makino, in Tokyo Bot. Mag. XII. (228)  
et *ibidem* XV. 150; Matsum. Ind. Pl. Jap. II. 1: 211.

NOM. JAP. *Waniguchiso*.

HAB. *Yezo*. Oshima, Ishikari.

DISTRIB. Yezo, Honshu, Shikoku, Kyushu and Manchuria.

**665. *Polygonatum humile*** Fisch. ex. Maxim. Prim. Fl. Amur. 275  
et in Mél. Biol. XI. 845; Fr. Schm. Fl. Amg.-Burej. 46, et Fl. Sachal. 185;  
Fr. et Sav. Enum. Pl. Jap. II. 55; Miyabe, Fl. Kuril. 263; Korsh. Pl. Amur.  
490; Palib. Consp. Fl. Korea. III. 10; Kom. Fl. Mansh. I. 477; Matsum.  
Ind. Pl. Jap. II. 1: 209; Nakai, Fl. Korea. II. 248; Miyabe & Miyake, Fl.  
Saghal. 462; Kudo, Rep. Veg. N. Saghal. 87; Mak. & Nem. Fl. Jap. ed.  
2. 1562.

*Polygonatum vulgare* A. Gray, Bot. Jap. 413, non Desf.

*Polygonatum officinale* Miq. Prol. Fl. Jap. 312, non All.

*Polygonatum officinale* All. var. *humile* Baker, in Jour. Linn. Soc. XIV.  
554.

NOM. JAP. *Hime-izui*, *Hime-amadokoro*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio. Kitami, Rishiri, Tokachi, Kushiro.

*Kuriles*. Kunashiri, Urup.

*Southern Saghalien*. Odomari, Honto, Mauka, Tomarioro, Ushoro, Toyohara, Shikka.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Amur, Manchuria and Dahuria.

**666. *Polygonatum japonicum*** Morr. et Dcne. in Ann. Sc. Nat. sér. 2, II. 311; Bak. in Jour. Linn. Soc. Bot. XIV. 554; Nakai, in Tokyo Bot. Mag. XXXVIII. (229); Mak. & Nem. Fl. Jap. ed. 2. 1562.

*Convallaria polygonatum* Thunb. Fl. Jap. 142, non L.

*Polygonatum multiflorum* A. Gray, Bot. Jap. 413, non All.

*Polygonatum officinale* Miq. Prol. Fl. Jap. 312; Palib. Consp. Fl. Korea. III. 10; Kom. Fl. Mansh. I. 478; Matsum. Ind. Pl. Jap. II. 1: 210, non All.

*Polygonatum officinale* All. var. *japonicum* Maxim. in Mél. Biol. XI. 847; Forb. et Hemsl. Ind. Fl. Sin. III. 107; Nakai, Fl. Korea. II. 247.

*Polygonatum vulgare* var. *japonicum* Fr. et Sav. Enum. Pl. Jap. II. 54.

*Polygonatum odoratum* Koidz. in Tokyo Bot. Mag. XXXIII. 111, non Druce.

NOM. JAP. Amadokoro.

HAB. *Yezo*. Oshima.

DISTRIB. Yezo, Honshu, Shikoku, Korea and Manchuria.

**667. *Polygonatum Maximowiczii*** Fr. Schm. Fl. Sachal. 185; Baker, in Journ. Linn. Soc. Bot. XIV. 556; Nakai, Veg. Mt. Apoi, 77.

*Polygonatum officinale* All. var. *Maximowiczii* Maxim. in Mél. Biol. XI. 847; Miyabe, Fl. Kuril. 263; Forb. et Hemsl. Ind. Fl. Sin. III. 108; Koidz. Pl. Sachal. 38; Miyabe & Miyake, Fl. Saghal. 463; Kudo, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 87.

*Polygonatum* sp. Maxim. Prim. Fl. Amur. 275.

*Polygonatum officinale* All. var. *pluriflorum* Miq. Prol. Fl. Jap. 312.

*Polygonatum giganteum* Dietr. var. *falcatum* Kawakami in Tokyo Bot. Mag. XIV. 107, non Maxim.

*Polygonatum japonicum* var. *Maximowiczii* Nakai, in Tokyo Bot. Mag. XXXVIII. (230); Mak. & Nem. Fl. Jap. ed. 2. 1562.

*Polygonatum Thunbergii* Morr. et Decne. var. *Maximowiczii* Nakai, Veg. Daisetsusan Mts. 27.

*Polygonatum odoratum* var. *Maximowiczii* Koidz. in Tokyo Bot. Mag. XXXIII. 111.

NOM. JAP. *O-amadokoro*.

HAB. *Yezo*. Oshima, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro.

*Kuriles*. Kunashiri, Etorofu.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kyushu, Korea, Manchuria, Amur and North China.

**668. *Polygonatum falcatum*** A. Gray, Bot. Jap. 413; Miq. Prol. Fl. Jap. 312; Fr. et Sav. Enum. Pl. Jap. II. 55; Baker, in Jour. Linn. Soc. Bot. XIV. 556; Palib. Consp. Fl. Korea. III. 10; Diels, Fl. C. China, 248; Nakai, Fl. Korea. II. 248; Mak. & Nem. Fl. Jap. ed. 2. 1562.

*Convallaria Polygonatum* Thunb. Fl. Jap. 142, p. p., non Linn.

*Polygonatum giganteum* Dietr.  $\gamma$ . *falcatum* Maxim. in M $\acute{e}$ l. Biol. XI. 851.

*Polygonatum giganteum* A. Gray, Bot. Jap. 413, non Dietr.

*Polygonatum canaliculatum* var. *sublanceolatum* Miq. Prol. Fl. Jap. 312.

NOM. JAP. *Narukoyuri*.

HAB. *Yezo*. Oshima.

DISTRIB. Yezo, Honshu, Kyushu, Korea, Manchuria and China.

**669. *Polygonatum multiflorum*** All. Fl. Pedemontana I. 131; Kunth, Enum. Pl. V. 138; Ledeb. Fl. Ross. IV. 125; Miq. Prol. Fl. Jap. 312; Fr. et Sav. Enum. Pl. Jap. II. 55; Baker, in Jour. Linn. Soc. Bot. XIV. 555; Maxim. in M $\acute{e}$ l. Biol. XI. 849; Forb. et Hemsl. Ind. Fl. Sin. III. 106; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 309; Hegi, Ill. Fl. Mitteleurop. II. 272; Matsum. Ind. Pl. Jap. II. 1: 210; Koidz. in Tokyo Bot. Mag.

XLIV. 395; Mak. & Nem. Fl. Jap. ed. 2. 1563.

*Convallaria multiflora* Thunb. Fl. Jap. 142, p. p., non Linn.

NOM. JAP. *Ko-narukoyuri*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Kyushu, China, Himalaya, Siberia and Europe.

**670. *Polygonatum lasianthum*** Maxim. in Mél. Biol. XI. 850; Matsum. Ind. Pl. Jap. II. 1: 209; Kudo, Rep. Veg. Nopporo For. 9; Mak. & Nem. Fl. Jap. ed. 2. 1563.

NOM. JAP. *Miyama-narukoyuri*.

HAB. *Yezo*. Oshima, Ishikari.

DISTRIB. *Yezo* and Honshu.

**671. *Polygonatum hondoense*** Nakai, in sched. Herb. Mus. Paris, apud Koidz. Fl. Symb. Or.-As. (34).

Caulis glaber, teres, striatus, robustus, giganteus. Folia alterna, elliptico-lanceolata, vel oblongo-lanceolata, sessilia, apice obtusa, 18–21 cm longa, 5–8 cm lata, utrinque glabra, subtus pallide glauca. Pedunculi crassi, 1.5–3 cm longi, racemosa, 2–3 flori. Flores cernui, breviter pedicellati, pedicellis 1.1–1.5 cm longis. Perianthium cylindraceo-campanulatum, 3 cm longum, cum filamentis hirtis medio insertum, dense hirsutum. Stylus stamina superans. Bacca nobis ignota.

*Polygonatum Kawakamii* Miyabe et Kudo, in sched. Herb. Hokkaido Imp. Univ.

NOM. JAP. *Oni-narukoyuri*.

HAB. *Yezo*. Oshima, Shiribeshi, Ishikari.

DISTRIB. *Yezo* and Honshu.

*Notes.* It is closely allied in its general habit to *Polygonatum falcatum* A. Gray form. *robustum* Makino, from which it is easily distinguished by its hairy filaments. It is also allied to *Polygonatum multiflorum* and *Polygonatum lasianthum*, but it differs from the former by its longer filaments inserted on the middle part of the corolla-tube, and from the latter by its larger lanceolate leaves; and besides it differs from both of them by its robust growth. The type specimen of this species, on which the description

was drawn, was collected at Kwannonji, Shonai, Prov. Ugo, Honshu, by Mr. I. Saito, in July, 1895, and it was presented to our Herbarium by the late Mr. T. Kawakami.

### *Convallaria* L.

**672. *Convallaria Keiskei*** Miq. Prol. Fl. Jap. 312; Makino, in Tokyo Bot. Mag. VIII. 303; Nakai, Veg. Mt. Apoi, 77.

*Convallaria majalis* Fr. Schm. Fl. Sachal. 185; Fr. et Sav. Enum. Pl. Jap. II. 54; Miyabe, Fl. Kuril. 264; Matsum. Ind. Pl. Jap. II. 1: 193; Koidz. Pl. Sachal. 37; Takeda, Fl. Shikotan, 489; Miyabe & Miyake, Fl. Saghal. 468; Kudo, Contrib. Fl. N. Saghal. 28 et Rep. Veg. N. Saghal. 88; Mak. & Nem. Fl. Jap. ed. 2. 1542, non L.

*Convallaria japonica* Greene, Leaflets Botanical Obs. & Crit. II. (1910) 36.

NOM. JAP. *Kimikageso, Suzuran.*

HAB. *Yezo.* Oshima, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro.

*Kuriles.* Kunashiri, Shikotan, Etorofu.

*Southern Saghalien.* Todomoshiri, Odomari, Honto, Mauka, Tomarioro, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien.* Alexandrowsk, Tim, Tymi.

DISTRIB. Saghalien, Kuriles, Yezo and Honshu.

### *Paris* L.

**673. *Paris hexaphylla*** Cham. in Linnaea. VI. 586; Kunth, Enum. Pl. V. 117; Ledeb. Fl. Ross. IV. 120; Trautv. et Mey. Fl. Ochot. 91; Fr. Schm. Fl. Sachal. 184; Franch. Pl. David. 307; Hult. Fl. Kamtch. I. 251; Tatewaki, Veg. Mt. Apoi, 74; Nakai, Veg. Mt. Apoi, 77.

*Paris quadrifolia* L. var. *obovata* Rgl. et Til. Fl. Ajan. 121; Maxim. Prim. Fl. Amur. 272; Rgl. Tent. Fl. Ussuri. 148; Fr. et Sav. Enum. Pl. Jap. II. 56; Franch. Pl. David. II. 134, et Monogr. Paris, 282; Kom. Fl. Mansh. I. 484; Forb. & Hemsl. Ind. Fl. Sin. III. 146; Matsum. Ind. Pl. Jap. II. 1:

209; Koidz. Pl. Sachal. 38; Nakai, Fl. Korea. II. 241; Simpson, in Jour. Linn. Soc. Bot. XLI. 447; Miyabe & Miyake, Fl. Saghal. 482; Kudo, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 89; Mak. & Nem. Fl. Jap. ed. 2. 1560.

*Paris obovata* Ledeb. Ic. Pl. Ross. I. 6. *t.* 16, et Fl. Ross. IV. 120; Turcz. Fl. Baic.-Dahur. II. 201; Kunth, Enum. Pl. V. 117.

NOM. JAP. *Kurumaba-tsukubaneso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Tokachi, Kushiro.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Odomari, Honto, Mauka, Tomarioro, Toyohara, Motodomari.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Shikoku, Korea, China, Mongolia, Amur, Ussuri, Ajan, Ochotsk and Siberia.

**674. *Paris tetraphylla*** A. Gray, Bot. Jap. 412; Miq. Prol. Fl. Jap. 311; Fr. et Sav. Enum. Pl. Jap. II. 57; Franch. Monogr. Paris, 284; Matsum. Ind. Pl. Jap. II. 1: 209; Tatewaki, Veg. Akan, 55, et Veg. Mt. Apoi, 74; Nakai, Veg. Mt. Apoi, 77; Mak. & Nem. Fl. Jap. ed. 2. 1560.

*Paris quadrifolia* Thunb. Fl. Jap. 171, non L.

NOM. JAP. *Tsukubaneso*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Tokachi, Kushiro.

DISTRIB. Yezo, Honshu and Shikoku.

### *Trillium* L.

**675. *Trillium kamschaticum*** Pall. in Herb. Lamb. ex Pursh, Fl. Am. Sept. I. 246; Miyabe, Fl. Kuril. 265; Kawakami, in Tokyo Bot. Mag. XIX. 107; Matsum. Ind. Pl. Jap. II. 1: 217; Takeda, in Tokyo Bot. Mag. XXIV. 317; Miyabe & Miyake, Fl. Saghal. 481; Kudo, Fl. Paramushir, 93, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 89; Nakai, Veg. Mt. Apoi, 78; Mak. & Nem. Fl. Jap. ed. 2. 1574.

*Trillium obovatum* Kunth, Enum. Pl. V. 124, p. p.; Ledeb. Fl. Ross. IV. 121; Hook. et Arn. Beech. Voy. 117; Maxim. Prim. Fl. Amur. 273, et in Mél. Biol. XI. 861; Fr. Schm. Fl. Sachal. 185; Kom. Fl. Mansh. I. 485; Matsum. Ind. Pl. Jap. II. 1: 217; Koidz. Pl. Sachal. 39; Nakai, Fl. Korea. II. 240; Kom. Fl. Kamtsch. I. 305, non Pursh.

*Trillium erectum* L. var. *album* A. Gray, Pl. Jap. 320.

*Trillium erectum* L. var. *japonicum* A. Gray, Bot. Jap. 413; Fr. et Sav. Enum. Pl. Jap. II. 56.

*Trillium Pallasii* Hult. Fl. Kamtch. I. 252.

NOM. JAP. *Obanano-enreiso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Rishiri, Tokachi, Kushiro, Nemuro.

*Kuriles*. Etorofu, Urup, Shimushir, Ketoi, Rashuwa, Matsuwa, Paramushir, Shumushu.

*Southern Saghalien*. Todomoshiri, Odomari, Honto, Mauka, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Nyiwo, Chaiwo, Pronge-Baikal, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Amur and Kamtchatka.

var. **kurilense** Tatewaki, var. nov.

Bacca profunde atro-purpurea.

NOM. JAP. *Kuromino-obana-enreiso*.

HAB. *Kuriles*. Etorofu, Urup, Ketoi, Matsuwa.

DISTRIB. Endemic.

**676. *Trillium Tschonoskii*** Maxim. in Mél. Biol. XI. 863; Miyabe, Fl. Kuril. 266, *in nota Trilli kamtschatici*; Yabe, in Tokyo Bot. Mag. VII. 175; Forb. et Hemsl. Ind. Fl. Sin. III. 144; Matsum. Ind. Pl. Jap. II. 1: 217; Makino, in Tokyo Bot. Mag. XXIV. 138; Takeda, in Tokyo Bot. Mag. XXIV. 317; Miyabe & Miyake, Fl. Saghal. 482; Nakai, Veg. Daisetsusan Mts. 60, et Veg. Mt. Apoi, 78; Mak. & Nem. Fl. Jap. ed. 2. 1575.

NOM. JAP. *Miyama-enreiso*, *Shirobana-enreiso*.

HAB. *Yezo.*: Oshima, Iburi, Hidaka, Ishikari, Teshio, Tokachi, Kushiro.

*Southern Saghalien.* Odomari, Motodomari.

DISTRIB. Saghalien, Yezo, Honshu and China.

form. **violaceum** Makino, in Tokyo Bot. Mag. XXVII. 115; Tatewaki, Veg. Mt. Apoi, 75; Nakai, Veg. Mt. Apoi, 78; Mak. & Nem. l. c.

NOM. JAP. *Murasaki-enreiso.*

HAB. *Yezo.* Hidaka.

DISTRIB. Yezo and Honshu.

**677. *Trillium Smallii*** Maxim. in Mém. Biol. XI. 862; Makino, in Tokyo Bot. Mag. III. 8; Matsum. Ind. Pl. Jap. II. 1: 217; Miyabe & Miyake, Fl. Saghal. 480.

*Trillium erectum* L. var. *japonicum fl. rubro* A. Gray, Bot. Jap. 413.

*Trillium apetalon* Makino, in Tokyo Bot. Mag. XXIV. 137; Mak. & Nem. Fl. Jap. ed. 2. 1574.

NOM. JAP. *Enreiso, Tachi-aoi.*

HAB. *Yezo.* Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Rishiri.

*Kuriles.* Etorofu, Urup.

*Southern Saghalien.* Odomari, Mauka, Toyohara, Motodomari.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Shikoku and Kyushu.

var. **Maximowiczii** Miyabe et Kudo, var. nov.

“Petalis inaequimagnis calycem aequantibus vel brevioribus rotundatis obovatisve profunde fuscobrunnis.”

NOM. JAP. *Murasaki-tachiaoi.*

HAB. *Yezo.* Oshima, Ishikari.

*Southern Saghalien.* Toyohara.

DISTRIB. Saghalien, Yezo and Honshu(?).

As was observed by Maximowicz, the apetalous form of the present species is most widely distributed, while the petaloid form is rarely met with. In a certain restricted region on the Hakodate-Hill, there are still found up to this day clumps of the petaloid form, from which Maximowicz had apparently drawn his delineation of the species some seventy years ago.



Figure 2. *Trillium Smallii* Maxim. var. *Maximowiczii* Miyabe et Kudo.—1. Collected at Sapporo, Prov. Ishikari, in May 1878, by the Class '80.—2. Hakodate-Hill, on May 13, 1922, by I. Yamamoto.—3. At Otasan, Southern Saghalien, on June 28, 1930, by S. Otagiri.—4, 5. On Hakodate-Hill, on April 30, 1924, by I. Yamamoto.

The petaloid form had better be treated as an abnormal variety of the apetalous plant. The petals are rarely of about equal size and form, as shown in Figs. 3 and 4. They are more generally unequal and assume often an irregular lobate shape, as shown in Figs. 1, 2 and 5. In Fig. 5, there is shown a stamen partly converted into a petal.

### *Liriope* Lour.

678. *Liriope minor* Makino, in Tokyo Bot. Mag. VII. 323, et XV. 93; Matsum. Ind. Pl. Jap. II. 1: 206; Miyabe et Kudo, Mater. Fl. Hokkaido n. 19, in Trans. Sapporo Nat. Hist. Soc. V. 70; Tatewaki, Veg. Mt. Apoi, 75; Mak. & Nem. Fl. Jap. ed. 2. 1556; Nakai, Veg. Mt. Apoi, 77.

*Ophiopogon spicatus* var. *minor* Maxim. in Mél. Biol. VII. 324; Fr. et Sav. Enum. Pl. Jap. II. 84.

*Mondo cernua* Koidz. in Tokyo Bot. Mag. XL. 332.

NOM. JAP. *Hime-yaburan*.

HAB. *Yezo*. Oshima, Hidaka.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and Liukiu.

### *Ophiopogon* Ker-Gawl.

**679. *Ophiopogon japonicus*** Ker-Gawl. in Bot. Mag. XXVII. (1808) *t.* 1063; Maxim. in Mél. Biol. VII. 325; Fr. et Sav. Enum. Pl. Jap. II. 84; Palib. Consp. Fl. Korea. III. 5; Yabe, in Tokyo Bot. Mag. XVII. 136; Forb. et Hemsl. Ind. Fl. Sin. III. 78; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 319; Matsum. Ind. Pl. Jap. II. 1: 208; Mak. & Nem. Fl. Jap. ed. 2. 1558.

*Convallaria japonica* L. f. Suppl. 204; Thunb. Fl. Jap. 139.

*Flüggea japonica* Rich. in Schrad. N. Jour. II. 1: 9; Kunth, Enum. Pl. V. 301; Gray, Pl. Jap. 322; Baker, in Jour. Linn. Soc. Bot. XVII. 501; Matsum. et Hayata, Enum. Pl. Formos. 426.

*Slateria japonica* Desv. in Jour. Bot. I. 244.

var. **genuinus** Maxim. l. c. 327; Palib. Consp. Fl. Korea. III. 5; Matsum. Ind. Pl. Jap. II. 1: 208; Nakai, Fl. Korea. II. 240.

NOM. JAP. *Ja-no-hige*, *Riu-no-hige*.

HAB. *Yezo*. Oshima.

DISTRIB. *sp.* *Yezo*, Honshu, Kyushu, Liukiu, Formosa, Korea and China.

### *Aletris* L.

**680. *Aletris foliata*** Franch. in Jour. Bot. X. 179; Miyabe & Kudo, Mater. Fl. Hokkaido n. 18, in Trans. Sapporo Nat. Hist. Soc. V. 69; Mak. & Nem. Fl. Jap. ed. 2. 1534.

*Metanartheicum foliatum* Maxim. in Trautv., Regel, Maxim. et Winkl. Decas Pl. Novarum (1882) 10; Matsum. Ind. Pl. Jap. II. 1: 207.

*Aletris Dickinsii* Franch. in Bull. Soc. Philom. (1886) 3.

NOM. JAP. *Yezo-no-sokushinran, Nebari-nogiran.*

HAB. *Yezo.* Oshima, Ishikari.

DISTRIB. *Yezo* and Honshu.

***Smilax*** Tourn.

**681. *Smilax China*** L. Sp. Pl. ed. 1, 1029; Thunb. Fl. Jap. 152; Kunth, Enum. Pl. V. 243; Miq. Prol. Fl. Jap. 313; Maxim. in Mél. Biol. VIII. 408; Fr. et Sav. Enum. Pl. Jap. II. 49; DC. Monogr. Phanerog. III. 9; Palib. Consp. Fl. Korea. III. 9; Diels, Fl. C. China, 255; Forb. et Hemsl. Ind. Fl. Sin. III. 96; Matsum. Ind. Pl. Jap. II. 1: 212; Matsum. et Hayata, Enum. Pl. Formos. 435; Nakai, Fl. Korea. II. 237; Mak. & Nem. Fl. Jap. ed. 2. 1566.

*Smilax japonicus* A. Gray, Pl. Jap. 320.

*Coprosmanthus japonicus* Kunth, Enum. Pl. V. 268.

*Smilax ferox* Wall. Cat. n. 5119; Benth. Fl. Hongk. 270; Hook. f. Fl. Brit. Ind. VI. 307.

*Smilax sebeana* Miq. Prol. Fl. Jap. 313.

NOM. JAP. *Sarutori-ibara, Sankirai.*

HAB. *Yezo.* Oshima, Ihuri.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Liukiu, Formosa, Korea, China and Eastern Himalaya.

**682. *Smilax nipponica*** Miq. in Versl. Med. K. Acad. 2. ser. II. 87, et Prol. Fl. Jap. 314; Nakai, Veg. Mt. Apoi, 78.

*Smilax nipponica* Miq. var. *a. typica* Makino, in Journ. Jap. Bot. VI. 17; Mak. & Nem. Fl. Jap. ed. 2. 1568.

*Smilax herbacea* var. *nipponica* Maxim. in Mél. Biol. VIII. 412; Fr. et Sav. Enum. Pl. Jap. II. 48; Matsum. Ind. Pl. Jap. II. 1: 213; Wright, in Journ. Linn. Soc. Bot. XXXVI. 98; Nakai, Fl. Korea. II. 238; Mak. & Nem. Fl. Jap. 1278; Tatewaki, Pl. Teshio Univ. For. 46.

*Smilax pseudochina* Thunb. Fl. Jap. 152, non L.

*Smilax herbacea* var. *Oldhami* Maxim. in Mél. Biol. VIII. 413, quoad pl. *Yezo.*

*Smilax Maximowiczii* Koidz. Fl. Symb. Or.-As. (10).

NOM. JAP. *Shiode*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Hidaka, Ishikari, Teshio.

DISTRIB. *Yezo*, Honshu, Kyushu, Korea, Manchuria and China.

#### AMARYLLIDACEÆ

##### *Lycoris* Herb.

683. *Lycoris sanguinea* Maxim. in Engl. Jahrb. VI. 54, 80; Baker, Handb. Amaryll. 40; Wright, in Journ. Linn. Soc. XXXVI. 89; Matsum. Ind. Pl. Jap. II. 1: 221; Mak. & Nem. Fl. Jap. ed. 2. 1582.

NOM. JAP. *Kitsuneno-kamisori*.

HAB. *Yezo*. Oshima, naturalized in the vicinity of Hakodate.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

#### DIOSCOREACEÆ

##### *Dioscorea* L.

684. *Dioscorea gracillima* Miq. in Ann. Mus. Bot. Ludg. Bat. III. 160 et Prol. Fl. Jap. 324; Fr. et Sav. Enum. Pl. Jap. II. 47; Makino, in Tokyo Bot. Mag. II. 27, et ibidem III. 113, et III. Fl. Jap. I. t. 25; Matsum. Ind. Pl. Jap. II. 1: 223; Takeda, in Tokyo Bot. Mag. XXIV. 178; Prain et Burkill, in Jour. Asiat. Soc. Bengal, n. s. X. 17; Knuth, in Engl. Pfl.-reich. IV. 43: 252; Mak. & Nem. Fl. Jap. ed. 2. 1586.

NOM. JAP. *Tachidokoro*.

HAB. *Yezo*. Ishikari.

DISTRIB. *Yezo* and Honshu.

685. *Dioscorea Batatas* Decne. in Rev. Hort. ser. 4, III. 243; Makino, in Tokyo Bot. Mag. II. 25 et III. 112 et Phanerog. et Pterid. Jap. Ic. III. II. t. 93, 94, 95; Matsum. Ind. Pl. Jap. II. 1: 223; Prain et Burkill, in Jour. Asiat. Soc. Bengal, n. s. X. 27; Knuth, in Engl. Pfl.-reich. IV. 43: 261.

*Dioscorea Batatas* Decne. f. *typica* Makino, in Mak. & Nem. Fl. Jap. ed. 2. 1582; Tatewaki, Veg. Akan, 56.

*Dioscorea oppositifolia* Thunb. Fl. Jap. 151, non L.

*Dioscorea opposita* Sieb. in Verhandl. Bot. Genootsch. XII. 14; Kawakami, List Pl. Formosa, 122.

NOM. JAP. *Nagaiimo*.

HAB. *Yezo*. Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku, Korea, Quelpaert, China and Formosa.

**686. *Dioscorea nipponica*** Makino, Ill. Fl. Jap. I. *t.* 45; Matsum. Ind. Pl. Jap. II. 1: 223; Takeda, in Tokyo Bot. Mag. XXIV. 178; Nakai, Fl. Korea. II. 253; Mak. & Nem. Fl. Jap. ed. 2. 1586.

var. *a. vera* Prain et Burkill, in Jour. Asiat. Soc. Bengal, n. s. X. 14; Knuth, in Engl. Pfl.-reich. IV. 43: 314.

NOM. JAP. . *Uchiwa-dokoro*, *Komori-dokoro*.

HAB. *Yezo*. Shiribeshi, Ishikari.

DISTRIB. *Yezo*, Honshu, Kyushu, Korea, Manchuria (var. *β. Jamestii*) and China.

**687. *Dioscorea Tokoro*** Makino, in Tokyo Bot. Mag. III. 112, et ibidem XV. 151, et Ill. Fl. Jap. I. *t.* 24, et Phanerog. Pterid. Jap. II. *t.* 79; Matsum. Ind. Pl. Jap. II. 1: 225; Takeda, in Tokyo Bot. Mag. XXIV. 178; Prain et Burkill, in Jour. Asiat. Soc. Bengal, n. s. X. 14; Knuth, in Engl. Pfl.-reich. IV. 43: 315; Mak. et Nem. Fl. Jap. ed. 2. 1587.

*Dioscorea sativa* Miq. Prol. Fl. Jap. 323; Fr. et Sav. Enum. Pl. Jap. II. 47, ex p., non L.

*Dioscorea Yakusai* Prain et Burkill, in Jour. Asiat Soc. Bengal. LXXIII (1904) 47, Suppl. 10.

*Dioscorea Sidaae* Knuth, in Engl. Pfl.-reich. IV. 43: 317, quoad pl. *Yezo*.

NOM. JAP. *Oni-dokoro*, *Naga-dokoro*.

HAB. *Yezo*. Oshima, Iburi, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

## IRIDACEÆ

*Iris* L.\*

688. *Iris Nertschinkia* Lodd. in Bot. Cab. XIX. *t.* 1843; Nakai, Veg. Mt. Apoi, 78.

*Iris sibirica* Thunb. Fl. Jap. 33; Miq. Prol. Fl. Jap. 306; Fr. et Sav. Enum. Pl. Jap. II. 42, non L.

*Iris orientalis* Thunb. in Trans. Linn. Soc. II. 328, non Mill.

*Xiphium orientale* Schrank, in Flora VII. 2. Beibl. 19.

*Iris sibirica* var. *orientalis* Baker, in Jour. Linn. Soc. XVI. 139, p. p., et Handb. Irideae, 9, p. p.; Maxim. in Mél. Biol. X. 709; Korsh. Pl. Amur. 398; Palib. Consp. Fl. Korea. III. 7; Kom. Fl. Mansh. I. 494, p. p.; Forb. et Hemsl. Ind. Fl. Sin. III. 84; Matsum. Ind. Pl. Jap. II. 1: 229, p. p.; Nakai, Fl. Korea. II. 233; Mak. & Nem. Fl. Jap. 1228.

*Iris sanguinea* Donn, Hort. Cant. ed. 6. 17; Koidz. in Tokyo Bot. Mag. XL. 331.

*Iris sanguinea* Donn var. *typica* Makino, in Journ. Jap. Bot. VI. 32; Mak. & Nem. Fl. Jap. ed. 2. 1593.

NOM. JAP. *Ayame*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Tokachi, Kushiro.

DISTRIB. *Yezo*, Honshu, Kyushu, Korea, Manchuria, Amur, Ussuri and E. Siberia.

689. *Iris Thunbergii* Lundström, in Act. Hort. Berg. V. 3: 16; Nakai, Veg. Mt. Apoi, 78.

*Iris sibirica*  $\beta$ . *haematophylla* Miq. Cat. Ludg. Bat. 99; Fr. et Sav. Enum. Pl. Jap. II. 43, non Fisch.

*Iris sibirica* Thunb. in Trans. Linn. Soc. II. 328, non L.; Nakai, Veg. Isl. Quelp. 33, p. p.

*Iris sibirica* var. *orientalis* Baker, in Gard. Chron. (1876, pt. 2) 324, et in Journ. Linn. Soc. XVI. 139, p. p., et Handb. Irid. 9, p. p.; Maxim. in

---

\* As to the nomenclature of the species of this genus we have mostly followed the opinion of Prof. Nakai.

Bull. Acad. St. Pétersb. XXVI. 519; Kom. Fl. Mansh. I. 494, p. p.; Matsum. Ind. Pl. Jap. II. 1: 229, p. p.; Nakai, Fl. Korea. II. 233.

*Iris orientalis* Dykes, Gen. Iris, 23, p. p., t. I, f. 6, non Miller, nec Thunb.

*Iris sanguinea*  $\beta$ . *violacea* Mak. in Journ. Jap. Bot. VI. 32.

*Iris Kamayama* Mak. in Journ. Jap. Bot. VII. 10, f. 2; Mak. & Nem. Fl. Jap. ed. 2. 1591.

NOM. JAP. *Kamayama-shobu*.

HAB. *Yezo*. Hidaka.

DISTRIB. *Yezo*, Honshu and Korea.

**690. *Iris setosa*** Pall. ex Link, Jahrb. I. 3: 71; Ledeb. Fl. Ross. IV. 96; A. Gray, Bot. Jap. 412; Trautv. et Mey. Fl. Ochot. 90; Rgl. et Til. Fl. Ajan. 121; Rgl. Tent. Fl. Ussuri. 147; Maxim. Prim. Fl. Amur. 271, et in Mél. Biol. X. 713; Miq. Prol. Fl. Jap. 306; Fr. Schm. Fl. Sachal. 184; Fr. et Sav. Enum. Pl. Jap. II. 42; Miyabe, Fl. Kuril. 263; Baker, Handb. Iridae, 11; Kom. Fl. Mansh. I. 496; Kawakami, in Tokyo Bot. Mag. XIV. 107; Yabe et Yendo, in Tokyo Bot. Mag. XVIII. (178); Matsum. Ind. Pl. Jap. II. 1: 228; Koidz. Pl. Sachal. 40; Nakai, Fl. Korea. II. 234; Takeda, Fl. Shikotan, 488; Miyabe & Miyake, Fl. Saghal. 458; Kudo, Fl. Paramushir, 93, et Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 89; Mak. & Nem. Fl. Jap. ed. 2. 1593; Hult. Fl. Kamtch. I. 254; Kom. Fl. Pen. Kamtsch. I. 306; Tatewaki, Pl. Is. Alaid, 159; Nakai, Veg. Mt. Apoi, 78.

NOM. JAP. *Hiogi-ayame*.

HAB. *Yezo*. Shiribeshi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, RASHUWA, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Todomoshiri, Odomari, Mauka, Tomarioro, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi, Oha, Schmidt-Penn.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Korea, Manchuria, Eastern Siberia, Kamtchatka and Alaska.

**691. *Iris laevigata*** Fisch. Ind. Sem. Hort. Petrop. V. 36; Ledeb. Fl.

Ross. IV. 97; Maxim. Prim. Fl. Amur. 271; Rgl. Tent. Fl. Ussuri. 147; Fr. Schm. Fl. Amg.-Burej. 64; Fr. et Sav. Enum. Pl. Jap. II. 42; Makino, in Tokyo Bot. Mag. XIV. (60); Kom. Fl. Mansh. I. 492; Kudo, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 90; Mak. & Nem. Fl. Jap. ed. 2. 1592; Koidz. in Tokyo Bot. Mag. XXXIX. 299.

*Iris versicolor* Thunb. Fl. Jap. 34, non L.

*Iris laevigata* Fisch. var. *typica* Maxim. in Mél. Biol. X. 711; Korsh. Pl. Amur. 399.

*Iris albo-purpurea* Baker var. *genuina* Makino, in Tokyo Bot. Mag. XIV. (61), et XVI. 152; Matsum. Ind. Pl. Jap. II. 1: 226.

NOM. JAP. *Kakitsubata*.

HAB. *Yezo*. Oshima, Hidaka, Ishikari.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Toyohara, Shikka.

*Northern Saghalien*. Tymi.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Manchuria and E. Siberia.

**692. *Iris ensata*** Thunb. in Trans. Linn. Soc. II. 328; Koidz. in Tokyo Bot. Mag. XXXIX. 300.

*Iris graminea* Thunb. Dissert. Irid. 6, 20, 28, 29, in Nova Act. Reg. Soc. Upsal. IV. 37, et Fl. Jap. 34, non Linn.

*Iris sibirica* Thunb. Fl. Jap. 380, non Linn.

*Iris Kaempferi* Kom. Fl. Mansh. I. 493; Nakai, Fl. Korea. II. 233; Dykes, Gen. Iris, 74, *t.* 19, non Sieb.

*Iris laevigata* var. *Kaempferi* Maxim. in Mél. Biol. X. 712; Korsh. Pl. Amur, 399; Palib. Consp. Fl. Korea. III. 8.

var. **spontanea** Nakai, Veg. Mt. Apoi, 78; Mak. & Nem. Fl. Jap. ed. 2. 1590.

*Iris Kaempferi* var. *spontanea* Makino, in Tokyo Bot. Mag. XXIII. 94; Mak. & Nem. Fl. Jap. 1226.

NOM. JAP. *No-hanashobu*, *Yamashobu*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Hidaka, Ishikari, Teshio, Kushiro, Nemuro.

*Kuriles*. Kunashiri.

DISTRIB. Kuriles, Yezo, Honshu, Korea, Manchuria and Amur.

**693. *Iris Maackii*** Maxim. in Bull. Acad. Petrop. XXVI. 642, et in Mém. Biol. X. 740; Baker, Handb. Iridae, 12; Kom. Fl. Mansh. I. 496; Miyabe & Miyake, Fl. Saghal. 459; Mak. & Nem. Fl. Jap. ed. 2. 1592.

*Iris Pseudacorus* Rgl. Tent. Fl. Ussuri. 148, non L.

NOM. JAP. *Karafuto-kishobu*.

HAB. *Southern Saghalien*. Shikka.

DISTRIB. Saghalien and Ussuri.

**694. *Iris gracilipes*** A. Gray, Bot. Jap. 412; Miq. Prol. Fl. Jap. 305; Fr. et Sav. Enum. Pl. Jap. II. 41; Bak. in Journ. Linn. Soc. XVI. 143; Matsum. Ind. Pl. Jap. II. 1: 227; Mak. & Nem. Fl. Jap. ed. 2. 1591.

NOM. JAP. *Hime-shaga*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu and Kyushu.

### *Sisyrinchium* L.

**695. *Sisyrinchium angustifolium*** Mill. Gard. Dict. ed. 8, n. 2; Robins. et Fern. in Gray's New Man. Bot. ed. 7, 302.

NOM. JAP. *Hire-niwa-zekisho*.

HAB. *Yezo*. Oshima, Ishikari. (Naturalized from N. America).

DISTRIB. N. America.

## ORCHIDACEÆ

### *Cypripedium* L.

**696. *Cypripedium guttatum*** Sw. in Act. Acad. Holm. (1800) 251; Ledeb. Fl. Alt. IV. 174 et Fl. Ross. IV. 88; Lindl. Gen. et Sp. Orchid. 529; Maxim. Prim. Fl. Amur. 270; Rgl. Tent. Fl. Ussuri. 145; Fr. Schm. Fl. Sachal. 184; Franch. Cypr. d'Asie, 13; Korsh. Fl. Amur. 389; Kom. Fl. Mansh. I. 508; Pfitzer, in Engl. Pfl.-reich. IV. 50: 32; Nakai, Fl. Korea. II. 229; Miyabe & Miyake, Fl. Saghal. 457; Schlechter, Orchid. Sino-Jap. Prodr. 81; Printz, Veg. Sib. Mong. Front. 185; Kudo, Rep. Veg. N. Saghal. 90; Hult. Fl. Kamtch. I. 256; Mak. & Nem. Fl. Jap. ed. 2. 1633.

NOM. JAP. *Chosen-kibana-atsumoriso*.

HAB. *Southern Saghalien*. Ushoro.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Korea, Manchuria, China, Amur, Ussuri, Himalaya, Siberia, Kamtchatka, Europe and North America.

**697. *Cypripedium Yatabeanum*** Makino, in Tokyo Bot. Mag. XIII. 91; Kränzlin, Orchid. Sibiriae in Journ. Russ. Bot. 56; Hult. Fl. Kamtch. I. 258; Kom. Fl. Pen. Kamtsch. I. 309.

*Cypripedium guttatum* var. *Yatabeanum* Pfltz. in Engl. Pfl.-reich. IV. 50: 30; Schlecht. Orchid. Sino-Jap. Prodr. 82; Mak. & Nem. Fl. Jap. ed. 2. 1633.

*Cypripedium guttatum* var.  $\beta$ . *Redowskii* Franch. l. c. 14, non Rchb.

NOM. JAP. *Kibanano-atsumoriso*, *Yezo-kumagaiso*.

HAB. *Yezo*. Kushiro.

*Kuriles*. Kunashiri, Shimushir, Ketoi, Rashua.

DISTRIB. Kuriles, Yezo, Honshu and Kamtchatka.

**698. *Cypripedium macranthum*** Sw. in Act. Acad. Holm. (1800) 250; Cham. in Linnaea, III. 34; Less. in Linnaea, IX. 154, 158; Ledeb. Fl. Alt. IV. 174, et Fl. Ross. IV. 87; Maxim. Prim. Fl. Amur. 270; Lindl. Gen. et Spec. Orchid. 528; Rgl. Tent. Fl. Ussuri. 145; Bot. Reg. *t.* 1534; Bot. Mag. *t.* 2938; Fr. Schm. Fl. Sachal. 184; Franch. Cyp. d'Asie, 8; Hook. f. Fl. Brit. Ind. VI. 170; Palib. Consp. Fl. Korea. III. 5; Finet, in Bull. Soc. Bot. Franc. (1900) 285; Korsh. Pl. Amur. 398; Kom. Fl. Mansh. I. 506; Yabe et Yendo, in Tokyo Bot. Mag. XVIII. (178); Pfitzer, in Engl. Pfl.-reich. IV. 50: 34; Matsum. Ind. Pl. Jap. II. 1: 241; Nakai, Fl. Korea. II. 229; Miyabe & Miyake, Fl. Saghal. 456; Schlechter, Orchid. Sino-Jap. Prodr. 83; Printz, Veg. Sib. Mong. Front. 186; Kudo, Rep. Veg. N. Saghal. 90; Hult. Fl. Kamtch. I. 257; Kom. Fl. Pen. Kamtsch. I. 310.

*Cypripedium Thunbergii* Matsum. Ind. Pl. Jap. II. 1: 242; Schlechter, l. c., p. p., non Bl.

NOM. JAP. *Hotei-atsumoriso*.

HAB. *Yezo*. Oshima, Shiribeshi, Hidaka, Kushiro.

*Kuriles*. Kunashiri, Etorofu, Urup, Shimushir, Ketoi.

*Southern Saghalien*. Todomoshiri, Odomari, Honto, Ushoro, Shikka.

*Northern Saghalien.* Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Formosa, Korea, China, Alpine Himalaya, Siberia, Kamtchatka and Europe.

var. **rebunense** Miyabe et Kudo, var. nov.

Typo similis, planta humiliore, floribus flavidis, differt.

*Cypripedium rebunense* Kodo, in Jap. Journ. Bot. II. 251.

NOM. JAP. *Rebun-atsumoriso*.

HAB. *Yezo*. Rebun.

DISTRIB. Endemic plant.

**699. *Cypripedium Calceolus* L.** Sp. Pl. ed. 1, 951, p. p.; Salisb. in Trans. Linn. Soc. I. 76, t. 2, f. 1; Ledeb. Fl. Ross. IV. 86; Turcz. Fl. Baic. Dah. III. 189; Maxim. Prim. Fl. Amur. 270; Rgl. Tent. Fl. Ussuri. 145; Fr. Schm. Fl. Sachal. 184; Korsh. Pl. Amur. 398; Franch. Cyp. d'Asie, 5; Forb. et Hemsl. Ind. Fl. Sin. III. 64; Nakai, Fl. Korea. II. 229; Pfitzer, in Engl. Pfl.-reich. IV. 50: 36; Aschers. u. Gracbn. Syn. Mitteleurop. Fl. III. 616; Hegi, Ill. Fl. Mittel-Europ. II. 326, t. 70, f. 1, t. 69, f. 11-13; Miyabe & Miyake, Fl. Saghal. 456; Kudo, Rep. Veg. N. Saghal. 91; Mak. & Nem. Fl. Jap. ed. 2. 1632; Schlecht. Orchid. Sino-Jap. Prodr. 80.

NOM. JAP. *O-kibana-atsumoriso*, *Karafuto-atsumoriso*.

HAB. *Northern Saghalien.* Alexandrowsk.

DISTRIB. Saghalien, Korea, Manchuria, Amur, Ussuri, China, Siberia, Caucasus and Europe.

**700. *Cypripedium japonicum* Thunb.** Fl. Jap. 30, et Icon. Pl. Jap. I, t. 1; A. Gray, Pl. Jap. 320; Miq. Prol. Fl. Jap. 142; Fr. et Sav. Enum. Pl. Jap. II. 40; Franch. Cyp. d'Asie, 14; E. Pfitzer, in Engl. Pfl.-reich. IV. 50: 42; Matsum. Ind. Pl. Jap. II. 1: 241; Takeda, in Tokyo Bot. Mag. XXV. 21; Schlechter, Orchid. Sino-Jap. Prodr. 82; Mak. & Nem. Fl. Jap. ed. 2. 1633..

NOM. JAP. *Kumagaiso*, *Hoteiso*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu and China.

**Orchis** L.

**701. *Orchis aristata*** Fisch. ex Lindl. Gen. et Sp. Orchid. 262; A. Gray, Bot. Jap. 409; Fr. Schm. Fl. Sachal. 181; Miyabe, Fl. Kuril. 262; Matsudaira, in Tokyo Bot. Mag. IX. 470; Kawakami, in ibidem XIV. 107; Yabe et Yendo, in ibidem XVIII. (178); Forb. et Hemsl. Ind. Fl. Sin. III. 49; Matsum. Ind. Pl. Jap. II. 1: 255; Koidz. Pl. Sachal. 42; Takeda, Fl. Shikotan, 487; Miyabe & Miyake, Fl. Saghal. 448; Schlecht. Orchid. Sino-Jap. Prodr. 87; Mak. & Nem. Fl. Jap. ed. 2. 1663; Hult. Fl. Kamtch. I. 259; Kom. Fl. Pen. Kamtsch. I. 311; Nakai, Veg. Mt. Apoi, 79.

*Orchis latifolia* L. var. *Beeringiana* Cham. et Schl. in Linnaea, III. 26; Ledeb. Fl. Ross. IV. 54; Miq. Prol. Fl. Jap. 138; Fr. et Sav. Enum. Pl. Jap. II. 29; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 733.

*Orchis Beeringiana* Kudo, Fl. Paramushir, 94, et Rep. Veg. N. Saghal. 91.

NOM. JAP. *Hakusan-chidori*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Rishiri, Kitami, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, RASHUWA, Matsuwa, Paramushir, Shumushu, Alaid.

*Southern Saghalien*. Todomoshiri, Odomari, Rutoka, Honto, Mauka, Ushoro, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Korea, China, Kamtchatka, Aleutian Islands and Alaska.

f. **punctata** Tatewaki, Pl. Alaid, in Trans. Sapporo Nat. Hist. Soc. IX. 10, (1927).

NOM. JAP. *Uzuraba-hakusanchidori*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Etorofu, Urup, Shimushir, RASHUWA, Paramushir, Alaid.

DISTRIB. Honshu, *Yezo*, Kuriles and Kamtchatka.

f. **albiflora** Tatewaki, l. c.

*Orchis aristata* Fisch. var. *albiflora* Koidz. in Tokyo Bot. Mag. XXXI. 34; Mak. & Nem. l. c.

NOM. JAP. *Shirobana-hakusan-chidori*.

HAB. *Yezo*. Oshima, Ishikari, Kushiro.

*Kuriles*. Kunashiri, Etorofu, RASHUWA, Alaid.

DISTRIB. Kuriles, *Yezo* and Honshu.

**702. *Orchis cyclochila*** Maxim. in Mél. Biol. XII. 548; Finet, in Bull. Soc. Bot. Franc. XLVII. 267; Kom. Fl. Mansh. I. 511; Nakai, Fl. Korea. II. 223; Miyabe & Kudo, Mater. Fl. Hokkaido n. 52, in Trans. Sapporo Nat. Hist. Soc. VI. 4; Schlechter, Orchid. Sino-Jap. Prodr. 88.

*Habenaria cyclochila* Fr. et Sav. Enum. Pl. Jap. II. 516.

*Gymnadenia* sp. Miq. Prol. Fl. Jap. 139.

*Gymnadenia cyclochila* Korsh. Pl. Amur. 396; Makino, in Tokyo Bot. Mag. XI. (415); Matsum. Ind. Pl. Jap. II. 1: 240; Makino & Miyoshi, Atl. Alp. Pl. Jap. pl. 7, f. 41; Mak. & Nem. Fl. Jap. ed. 2. 1650.

NOM. JAP. *Kamomeso*, *Kamomeran*, *Ichiyochidori*.

HAB. *Yezo*. Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku, Korea and Manchuria.

### *Amitostigma* Schlechter

**703. *Amitostigma Kinoshitai*** Schlechter, Orchid. Sino-Jap. Prodr. 93; Mak. & Nem. Fl. Jap. ed. 2. 1615.

*Gymnadenia gracilis* var. *angustifolia* Finet, in Bull. Soc. Bot. Franc. XLVII. 280.

*Gymnadenia Keiskei* var. *Kinoshitai* Makino, in Tokyo Bot. Mag. XVII. 113.

*Gymnadenia Keiskei* var. *angustifolia* Makino, in Tokyo Bot. Mag. XVII. 152; Matsum. Ind. Pl. Jap. II. 1: 249.

*Gymnadenia Kinoshitai* Makino, in Tokyo Bot. Mag. XXIII. 137; Takeda, in Tokyo Bot. Mag. XXIV. 131; Mak. & Nem. Fl. Jap. 1178.

NOM. JAP. *Koani-chidori*, *Tomo-chidori*.

HAB. *Yezo*. Oshima, Iburi, Ishikari.

*Kuriles*. Kunashiri.

DISTRIB. Kuriles, *Yezo* and Honshu.

*Perularia* Lindl.

**704. *Perularia fuscescens*** Lindl. Orchid. Gen. et Spec. 281; Ledeb. Fl. Ross. IV. 66; Maxim. Prim. Fl. Amur. 267; Fr. Schm. Fl. Saghal. 181; Rgl. Fl. Ussur. n. 475; Fr. et Sav. Enum. Pl. Jap. II. 30; Matsum. Ind. Pl. Jap. II. 1: 257; Schltr. Orchid. Sino-Jap. Prodr. 98; Mak. & Nem. Fl. Jap. ed. 2. 1666.

*Orchis fuscescens* L. Sp. Pl. ed. 1, 943.

*Platanthera fuscescens* Kränzl. Gen. Spec. Orch. I. 637, p. p.; Kom. Fl. Mansh. I. 517.

NOM. JAP. *Hiroha-tomboso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Kushiro, Nemuro.

*Kuriles*. Etorofu.

*Southern Saghalien*. Mauka.

DISTRIB. Saghalien, Kuriles, Yezo, Korea, Manchuria, China, East Siberia to Dahuria and Baical.

**705. *Perularia ussuriensis*** Schltr. Orchidel. Sino-Jap. Prodr. 99; Nakai, Veg. Daisetsusan Mts. 27, 61; Mak. & Nem. Fl. Jap. ed. 2. 1666.

*Platanthera ussuriensis* Maxim. in Mém. Biol. XII. 551; Kränzl. Orchid. Gen. et Spec. I. 629; Makino, in Tokyo Bot. Mag. IV. 452, et ibidem XIX. 26; Kom. Fl. Mansh. I. 516; Forb. et Hemsl. Ind. Fl. Sin. III. 57; Matsum. Ind. Pl. Jap. II. 1: 261; Nakai, Fl. Korea. II. 220; Takeda, in Tokyo Bot. Mag. XXIV. 134; Mak. & Nem. Fl. Jap. 1200.

*Platanthera tipuloides* L. *γ. ussuriensis* Rgl. et Maack, Tent. Fl. Ussuri. 142, t. 10, f. 7-9; Fr. et Sav. Enum. Pl. Jap. II. 32.

*Habenaria ussuriensis* Miyabe, Fl. Kuril. 263.

*Platanthera herbiola* Lindl. var. *japonica* Finet, in Bull. Soc. Bot. Fr. XVIII. 281.

NOM. JAP. *Ko-tomboso*, *Tomboso*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari, Kushiro.

DISTRIB. Yezo, Honshu, Shikoku, Kyushu, Korea, Manchuria, Amur, Ussuri and China.

*Herminium* L.

**706. *Herminium angustifolium*** Benth. et Hook. Gen. Pl. III. 622; Hook. f. Fl. Brit. Ind. VI. 129; Forb. et Hemsl. Ind. Fl. Sin. III. 50; Finet, in Bull. Soc. Bot. Franc. XLVII. 277; Schlechter, Orchidel. Sino-Jap. Prodr. 100; Mak. & Nem. Fl. Jap. ed. 2. 1652.

*Aceras angustifolia* Lindl. Gen. et Spec. Orchid. Pl. 232, Bot. Reg. t. 1515, et in Jour. Linn. Soc. Bot. III. 43; Royle, Ill. Bot. Himal. t. 87; Wight, Icon. V. 11, t. 1691.

*Platanthera angustifolia* Reichb. f. Atia Bot. Hamb. 39; Matsum. Ind. Pl. Jap. II. 1: 258.

var. **longicrurum** Makino, in Tokyo Bot. Mag. X. (109) et ibidem XII. (15); Yabe, in Tokyo Bot. Mag. XVII. 142; Schlechter, l. c. 100.

*Aceras longicruris* Wright, in Mem. Amer. Acad. ser. 2, VI. 411.

*Aceras angustifolia* Lindl. var. *longicruris* Miq. Prol. Fl. Jap. 139; Fr. et Sav. Enum. Pl. Jap. II. 30; Makino, in Tokyo Bot. Mag. III. 7.

MOM. JAP. *Mukagoso, Nagaba-no-mukagoso, Akanuma-ran.*

HAB. *Yezo. Oshima.*

DISTRIB. *Yezo, Honshu, Shikoku, Kyushu, Liukiu, Formosa and Manchuria.*

**707. *Herminium Monorchis*** R. Br. in Act. Hort. Kew. ed. 2, V. 191; Ledeb. Fl. Alt. IV. 171 et Fl. Ross. IV. 73; Rgl. Tent. Fl. Ussuri. 144; Hook. f. Fl. Brit. Ind. VI. 128; Korsh. Pl. Amur. 397; Pfitzer, in Engl. u. Pr. Nat. Pf.-fam. II. 6: 91, f. 91, B u. C; Kränzl. Orchid. Gen. et Spec. I. 532, 929; Kawakami, in Tokyo Bot. Mag. XII. (268); Finet, in Bull. Soc. Bot. Franc. XLVIII. 277, et Rev. Gen. Bot. XIII. 518; Kom. Fl. Mansh. I. 512; Makino, in Tokyo Bot. Mag. XVI. 56; Matsum. Ind. Pl. Jap. II. 1: 251; Schlechter, Orchid. Sino-Jap. Prodr. 102; Printz, Veg. Sib. Mong. Front. 187; Mak. & Nem. Fl. Jap. ed. 2. 1652.

*Ophrys Monorchis* L. Sp. Pl. ed. 1, 947.

NOM. JAP. *Kushiro-chidori.*

HAB. *Yezo. Kushiro.*

DISTRIB. *Yezo, Manchuria, China, Himalaya, Tibet, Siberia and Europe.*

**Coeloglossum** Hartm.

**708. Coeloglossum viride** Hartm. Handb. Skand. Fl. ed. I. 329; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 805.

*Satyrium viride* L. Sp. Pl. ed. I. 944.

*Habenaria viridis* R. Br. in Ait. Hort. Kew. ed. 5. 192.

*Platanthera viridis* Lindl. Syn. Brit. Fl. 261.

*Peristylus viridis* Lindl. Syn. Brit. Fl. ed. 2. 261.

var. **bracteatum** Richter, Pl. Europ. I. 276; Aschers. u. Graebn. l. c. 807; Miyabe & Miyake, Fl. Saghal. 455; Kudo, Contr. Fl. N. Saghal. 28, et Rep. Veg. N. Saghal. 92; Hult. Fl. Kamtch. I. 260; Kom. Fl. Pen. Kamtsch. I. 313; Tatewaki, Veg. Mt. Apoi, 75.

*Orchis bracteata* Muhl. in Willd. Sp. IV. 34.

*Satyrium bracteatum* Pers. Syn. II. 507.

*Habenaria bracteata* R. Br. in Ait. Hort. Kew. ed. 2. V. 192.

*Peristylus bracteatus* Lindl. Gen. & Sp. Orch. 298.

*Platanthera bracteata* Torr. Fl. N. Y. II. 279.

*Coeloglossum bracteatum* Parl. Fl. Ital. III. 409.

*Habenaria viridis* R. Br. var. *bracteata* A. Gray, Man. ed. 5. 500; Fernald, in Rhodora XXVIII. 174.

*Platanthera viridis* Lindl. var. *bracteata* Rehb. f. Icon. Fl. Germ. XIII. 30, t. 435, f. 1-3; Takeda, in Tokyo Bot. Mag. XXIV. 258; Mak. & Nem. Fl. Jap. ed. 2. 1673.

NOM. JAP. *Ao-chidori*, *Nemuro-chidori*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Tokachi, Kushiro, Nemuro.

*Kuriles*. Etorofu, Urup, Rasheda.

*Southern Saghalien*. Odomari.

*Northern Saghalien*. Tim.

DISTRIB. Saghalien, Yezo, Honshu, Kuriles, Kamtchatka, Siberia, China, Caucasus, Europe and North America.

var. **interjecta** (Fernald) in Rhodora XXVIII. 173.

*Platanthera viridis* Takeda, in Tokyo Bot. Mag. XXIV. 258, p. p., et Fl. Shikotan, 488, non Lindl.

NOM. JAP. *Chishima-aochidori*.

HAB. *Kuriles*. Shikotan, Urup, Shimushir, RASHUWA.

DISTRIB. Kurilès, Northeastern Siberia and North America.

***Gymnadenia*** R. Br.

**709. *Gymnadenia cucullata*** Rich. in Mém. Mus. Paris IV. 57; Lindl. Gen. et Spec. Orchid. 278; Ledeb. Fl. Alt. IV. 170, et Fl. Ross. IV. 66; Maxim. Prim. Fl. Amur. 267; Rgl. Tent. Fl. Ussuri. 141; Fr. Schm. Fl. Sachal. 181; Kom. Fl. Mansh. I. 513; Forb. et Hemsl. Ind. Fl. Sin. III. 52; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 826; Matsum. Ind. Pl. Jap. II. 1: 249; Koidz. Pl. Sachal. 43; Nakai, Fl. Korea. II. 219; Takeda, in Tokyo Bot. Mag. XXIV. 131; Miyabe & Miyake, Fl. Saghal. 449; Schlechter, Orchidel. Sino-Jap. Prodr. 105; Kudo, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 92; Mak. & Nem. Fl. Jap. ed. 2. 1650.

*Orchis cucullata* L. Sp. Pl. ed. 1, 939.

NOM. JAP. *Miyama-mojizuri*.

HAB. *Yezo*. Iburi, Ishikari, Nemuro.

*Southern Saghalien*. Odomari, Toyohara, Motodomari, Shikka.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Yezo, Honshu, Shikoku, Korea, Manchuria, China, Amur, Ussuri, Siberia and Europe.

**710. *Gymnadenia inumae*** Miyabe et Kudo, Mater. Fl. Hokkaido, n. 139, in Trans. Sapporo Nat. Hist. Soc. IX. 64.

*Habenaria inumae* Makino, Ill. Fl. Jap. I. n. 9, 1, t. 53.

*Platanthera inumae* Makino, in Tokyo Bot. Mag. XVI. 89; Matsum. Ind. Pl. Jap. II. 1: 259; Schltr. Orchidel. Sino-Jap. Prodr. 112; Mak. & Nem. Fl. Jap. ed. 2. 1670.

NOM. JAP. *Inuma-mukago*.

HAB. *Yezo*. Oshima.

DISTRIB. Yezo, Honshu and Kyushu.

**711. *Gymnadenia conopsea*** R. Br. in Ait. Hort. Kew. ed. 2. V. 196; Lindl. Gen. Sp. Orchid. 275; Ledeb. Fl. Alt. IV. 169, et Fl. Ross. IV. 64; Rgl. et Til. Fl. Ajan. 121; Fr. Schm. Fl. Sachal. 181; Korsh. Pl. Amur.

395; Kom. Fl. Mansh. I. 514; Finet, in Bull. Soc. Bot. France, XLVII. 279; Forb. et Hemsl. Ind. Fl. Sin. III. 52; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 812; Koidz. Pl. Sachal. 43; Hegi, Ill. Fl. Mittel-Europ. III. 369, t. 74, f. 5, t. 68, f. 21; Nakai, Fl. Korea. II. 218; Takeda, Fl. Shikotan, 487; Miyabe & Miyake, Fl. Saghal. 449; Printz, Veg. Sib. Mong. Front. 186; Kudo, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 93; Schltr. Orchid. Sino-Jap. Prodr. 104; Mak. & Nem. Fl. Jap. ed. 2. 1649.

*Orchis conopsea* L. Sp. Pl. ed. 1, 942.

*Habenaria conopsea* Benth. in Jour. Linn. Soc. XVIII. 354; Miyabe, Fl. Kuril. 262.

*Platanthera conopsea* Schltr.; Matsum. Ind. Pl. Jap. II. 1: 258.

*Gymnadenia conopsea* R. Br. var. *ussuriensis* Rgl. Tent. Fl. Ussuri. 141, t. 10, f. 1-10; Miq. Prol. Fl. Jap. 138; Fr. et Sav. Enum. Pl. Jap. II. 29.

NOM. JAP. *Tegata-chidori*, *Chidoriso*.

HAB. *Yezo*. Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup.

*Southern Saghalien*. Ushoro, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, China, Manchuria, Amur, Ussuri, Ajan, Siberia, Caucasus and Europe.

**712. *Gymnadenia camtschatica*** Miyabe et Kudo, in Miyabe & Miyake, Fl. Saghal. 450; Kudo, Rep. Veg. N. Saghal. 93; Hult Fl. Kamtch. I. 262; Tatewaki, Veg. Mt. Apoi, 75.

*Orchis camtschatica* Cham. in Linnaea, III. 27; Ledeb. Fl. Ross. IV. 63.

*Platanthera decipiens* Lindl. Gen. et Spec. Orchid. 290; Fr. Schm. Fl. Sachal. 183; Matsum. Ind. Pl. Jap. II. 1: 258; Kränzl. Orchid. Gen. et Spec. I. 617; Schltr. Orchidel. Sino-Jap. 110; Kom. Fl. Pen. Kamtsch. I. 314; Mak. & Nem. Fl. Jap. ed. 2. 1669; Nakai, Veg. Mt. Apoi, 79.

*Gymnadenia Vidalii* Fr. et Sav. Enum. Pl. Jap. II. 29, 512.

*Neolindleya decipiens* Kränzl. Gen. et Spec. Orch. I. 651.

NOM. JAP. *Nobine-chidori*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Kushiro.

*Kuriles.* Kunashiri, Etorofu.

*Southern Saghalien.* Todomoshiri, Odomari, Mauka, Ushoro, Toyohara.

*Northern Saghalien.* Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Shikoku and Kamtchatka.

***Platanthera*** L. C. Rich.

**713. *Platanthera nipponica*** Makino, in Tokyo Bot. Mag. XVI. 153; Matsum. Ind. Pl. Jap. II. 1: 260; Takeda, in Tokyo Bot. Mag. XXIV. 133; Schltr. Orchidel. Sino-Jap. Prodr. 115; Mak. & Nem. Fl. Jap. ed. 2. 1671.

*Platanthera matsumurana* Schltr. in Fedde, Repert. II. 167.

NOM. JAP. *Koba-no-tomboso*.

HAB. *Yezo.* Oshima, Ishikari, Teshio.

DISTRIB. *Yezo,* Honshu, Shikoku and Kyushu.

**714. *Platanthera neglecta*** Schlechter, Orchid. Sino-Jap. Prodr. 43, 115.

NOM. JAP. *Mai-sagiso*.

HAB. *Yezo.* Oshima.

DISTRIB. *Yezo,* Honshu, Korea and China.

**715. *Platanthera tipuloides*** Lindl. Gen. et Spec. Orchid. 285; Ledeb. Fl. Ross. IV. 69; Trautv. et Mey. Fl. Ochot. 90; Maxim. Prim. Fl. Amur. 268; Rgl. Tent. Fl. Ussuri. 142; Fr. Schm. Fl. Sachal. 182; Kom. Fl. Mansh. I. 516; Finet, in Bull. Soc. Bot. France XLVII. 284; Kränzl. Orchid. Gen. et Spec. I. 622; Takeda, in Tokyo Bot. Mag. XXIV. 134; Miyabe & Miyake, Fl. Saghal. 453; Schltr. Orchidel. Sino-Jap. Prodr. 118; Kudo, Fl. Paramushir, 94, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 93; Mak. & Nem. Fl. Jap. ed. 2. 1672; Hult. Fl. Kamtch. I. 266; Kom. Fl. Pen. Kamtsch. I. 316; Tatewaki, in Jour. Faç. Agr. Hokk. Imp. Univ. XXIX. 142, 179.

*Orchis tipuloides* L. Spec. Suppl. 401.

NOM. JAP. *Hosoba-no-kisochidori*.

HAB. *Yezo.* Ishikari, Teshio, Kitami, Kushiro.

*Kuriles.* Kunashiri, Shikotan, Etorofu, Urup, Shimushir, Ketoi, Rashua, Paramushir.

*Southern Saghalien.* Odomari, Tomarioro, Toyohara, Shikka.

*Northern Saghalien.* Alexandrowsk, Tymi, Chaiwo, Nyiwo.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kamtchatka, Amur and Ussuri.

**716. *Platanthera Maximowicziana*** Schltr. Orchidel. Sino-Jap. 114; Mak & Nem. Fl. Jap. ed. 2. 1671.

*Platanthera minor* Kränzl. Gen. et Sp. Orchid. I. 628; Matsum. Ind. Pl. Jap. II. 1: 260; Takeda, Fl. Shikotan, 488; Mak. & Nem. Fl. Jap. 1199, non Rchb. f.

*Habenaria minor* Miyabe, Fl. Kuril. 263.

NOM. JAP. *Takane-sagiso*.

HAB. *Yezo.* Oshima, Nemuro.

*Kuriles.* Shikotan, Etorofu.

DISTRIB. Kuriles, Yezo, Honshu, Shikoku, Kyushu and Korea.

**717. *Platanthera ophrydioides*** Fr. Schm. Fl. Sachal. 182; Matsum. Ind. Pl. Jap. II. 1: 260; Kränzl. Orchid. Gen. et Spec. 623; Miyabe & Miyake, Fl. Saghal. 453; Schltr. Orchideol. Sino-Jap. Prodr. 116; Kudo, Rep. Veg. N. Saghal. 94; Mak. & Nem. Fl. Jap. ed. 2. 1671; Nakai, Veg. Daisetsusan Mts. 61; Tatewaki, Veg. Distr. Akan, 56.

*Platanthera Reinii* Fr. et Sav. Enum. Pl. Jap. II. 32, 513.

*Platanthera mandarinorum* Reichb. var. *ophrydioides* Finet, in Bull. Soc. Bot. Franc. XLVII. 282.

NOM. JAP. *Kiso-chidori*.

HAB. *Yezo.* Oshima, Shiribeshi, Iburi, Ishikari, Teshio, Kushiro.

*Kuriles.* Kunashiri, Etorofu.

*Southern Saghalien.* Odomari, Tomarioro.

DISTRIB. Saghalien, Kuriles, Yezo and Honshu.

**718. *Platanthera mandarinorum*** Reichb. f. in Linnaea XXV. 226; Makino, in Tokyo Bot. Mag. IV, 21; Rolfe, in Jour. Linn. Soc. XXXVI. 56; Matsum. Ind. Pl. Jap. II. 1: 260; Makino & Nemoto, Fl. Jap. ed. 2. 1670;

Koidz. Fl. Symb. Or.-As. (36).

*Platanthera mandarinorum* var. *oreades* Koidz. l. c., quoad pl. Yezo.

NOM. JAP. *Obana-yama-sagiso*, *Hashinaga-yamasagiso*.

HAB. *Yezo*. Oshima, Teshio, Nemuro.

DISTRIB. Yezo, Honshu, Shikoku, Kyushu, Korea, Manchuria and China.

**719. *Platanthera chlorantha*** Cust. ex Reichb. in Mössl. Handb. ed. 2, II. 1565; Lindl. Gen. Spec. Orchid. 285; Ledeb. Fl. Ross. IV. 70; Maxim. Prim. Fl. Amur. 268; Rgl. Tent. Fl. Ussuri. 142; Fr. Schm. Fl. Sachal. 181; Kränzl. Gen. Spec. Orchid. I. 627; Korsh. Pl. Amur. 397; Kom. Fl. Mansh. I. 515; Forb. & Hemsl. Ind. Fl. Sin. III. 55; Hegi, Ill. Fl. Mittel-Europ. II. 353, f. 436; Takeda, in Tokyo Bot. Mag. XXV. 19, et Fl. Shikotan, 488; Miyabe & Miyake, Fl. Saghal. 451; Schltr. Orchideol. Sino-Jap. Prodr. 109; Kudo, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 94; Mak. & Nem. Fl. Jap. ed. 2. 1669.

*Habenaria chlorantha* Bab. in Trans. Linn. Soc. XVII. 462.

*Platanthera bifolia* Finet, in Bull. Soc. Bot. France, XLVII. 27, p. p.; Koidz. Pl. Sachal. 41.

NOM. JAP. *Yezo-chidori*, *Yezo-no-jimbaiso*, *Futaba-tsuresagi*.

HAB. *Yezo*. Oshima, Shiribeshi, Kitami, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Shikotan, Etorofu.

*Southern Saghalien*. Odomari, Mauka, Tomarioro, Ushoro, Toyohara, Shikka.

*Northern Saghalien*. Alexandrowsk, Tim, Tymi.

DISTRIB. Saghalien, Kuriles, Yezo, Korea, China, Amur, Ussuri, Siberia, Caucasus and Europe.

**720. *Platanthera sachalinensis*** Fr. Schm. Fl. Sachal. 181; Makino, in Tokyo Bot. Mag. III. 7, et ibidem IV. 452; Matsum. Ind. Pl. Jap. II. 1: 261; Kränzl. Orchid. Gen. et Spec. I. 630; Takeda, in Tokyo Bot. Mag. XXIV. 134; Miyabe & Miyake, Fl. Saghal. 452; Schltr. Orchideol. Sino-Jap. Prodr. 117; Tatewaki, Veg. Mt. Apoi, 76; Nakai, Veg. Mt. Apoi, 79; Mak & Nem. Fl. Jap. ed. 2. 1672.

NOM. JAP. *O-yamasagiso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rishiri, Kushiro, Nemuro.

*Kuriles*. Shikotan.

*Southern Saghalien*. Odomari.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu and Shikoku.

**721. *Platanthera Takedai*** Makino, in Tokyo Bot. Mag. XVII. 120; Matsum. Ind. Pl. Jap. II. 1: 261; Takeda, in Notes R. B. Edinbg. VIII. 39: 230; Schltr. Orchideol. Sino-Jap. Prodr. 118; Mak. & Nem. Fl. Jap. ed. 2. 1672.

NOM. JAP. *Miyama-chidori*.

HAB. *Yezo*. Ishikari, Tokachi.

DISTRIB. Yezo and Honshu.

**722. *Platanthera Chorisiana*** Reichb. f. Icon. Germ. XIII–XIV. 128; Kränzl. Orchid. Gen. et Spec. I. 615; Schltr. Orchideol. Sino-Jap. Prodr. 109; Mak. & Nem. Fl. Jap. ed. 2. 1669.

*Habenaria Chorisiana* Cham. in Linnaea, III. 31.

*Peristylus Chorisianus* Lindl. Gen. et Spec. Orchid. 297; Ledeb. Fl. Ross. IV. 71.

*Platanthera Matsudai* Makino, in Tokyo Bot. Mag. XVI. 56; Matsum. Ind. Pl. Jap. II. 1: 260; Mak. & Nem. Fl. Jap. 1198.

NOM. JAP. *Takane-tombo*.

HAB. *Yezo*. Iburi.

DISTRIB. Yezo, Honshu, Aleutians and Unalaska.

**723. *Platanthera Ditmariana*** Kom. in Fedde, Repert. XIII. 165, et Fl. Pen. Kamtsch. I. 317, *t.* 31; Hult. Fl. Kamtch. I. 263, *pl.* 4, *fig. e.*

*Platanthera Chorisiana* var. *elata* Finet, in Bull. Soc. Bot. France XLVII. 278; Takeda, Fl. Shikotan, 488; Schltr. Orchid. Sino-Jap. 116; Mak. & Nem. Fl. Jap. 1198; Tatewaki, Veg. Distr. Akan, 56.

*Platanthera fuscescens* Miyabe & Miyake, Fl. Saghal. 454, non Kränzl.

NOM. JAP. *Miyake-ran*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Teshio, Rishiri, Kushiro, Nemuro.

*Kuriles.* Kunashiri, Shikotan, Etorofu, Urup, Ketoi.

*Southern Saghalien.* Todomoshiri, Odomari, Mauka, Toyohara, Motodomari.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu and Kamtchatka.

form. **longibracteata** Miyabe et Kudo.

Bracteae inferiores flores ca. 8-plo superantes.

HAB. *Yezo.* Oshima.

*Kuriles.* Etorofu.

DISTRIB. Endemic form.

**724. *Platanthera japonica*** Lindl. Gen. et Sp. Orch. 290; Fr. et Sav. Enum. Pl. Jap. II. 31; Makino, in Tokyo Bot. Mag. III. 7, et ibidem IV. 453; Forb. et Hemsl. Ind. Fl. Sin. III. 56; Matsum. Ind. Pl. Jap. II. 1: 259; Kränzl. Orchid. Gen. et Sp. 635; Schltr. Orchideol. Sino-Jap. 112; Mak. & Nem. Fl. Jap. ed. 2. 1670.

*Orchis japonica* Thunb. Fl. Jap. 26.

*Habenaria japonica* A. Gray, Bot. Jap. 410; Miq. Prol. Fl. Jap. 139.

*Platanthera manubriata* Kränzl. in Engl. Bot. Jahrb. XXIX. 265.

*Platanthera setchuanica* Kränzl. in Engl. Bot. Jahrb. XXIX. 265.

NOM. JAP. *Tsuresagiso.*

HAB. *Yezo.* Oshima, Shiribeshi, Okushiri, Ishikari.

DISTRIB. Yezo, Honshu, Shikoku, Korea, Liukiu and China.

**725. *Platanthera hologlottis*** Maxim. Prim. Fl. Amur. 268, et in Mél. Biol. XII. 553; Rgl. Tent. Fl. Ussuri. 143; Fr. et Sav. Enum. Pl. Jap. II. 32; Korsh. Pl. Amur. 397; Kom. Fl. Mansh. I. 519; Forb. et Hemsl. Ind. Fl. Sin. III. 55; Matsum. Ind. Pl. Jap. II. 1: 259; Kränzl. Orchid. Gen. et Spec. I. 645; Nakai, Fl. Korea. II. 219; Schltr. Orchidel. Sino-Jap. 112; Mak. & Nem. Fl. Jap. ed. 2. 1670.

*Habenaria neuropetala* Miq. Prol. Fl. Jap. 139.

*Platanthera neuropetala* Fr. et Sav. Enum. Pl. Jap. II. 33.

NOM. JAP. *Mizuchidori, Jako-chidori.*

HAB. *Yezo.* Oshima, Ishikari, Kushiro.

*Kuriles.* Kunashiri.

DISTRIB. Kuriles, Yezo, Honshu, Korea, Manchuria, Amur, Ussuri and Dahuria.

**726. *Platanthera hyperborea*** Lindl. Gen. et Sp. Orchid. 287; Hult. Fl. Kamtch. I. 264; Kom. Fl. Kamtsch. I. 315; Tatewaki, in Journ. Fac. Agr. Hokk. Imp. Univ. XXIX. 151, 183.

*Orchis hyperborea* L. Mant. I. 121.

*Habenaria hyperborea* R. Br. in Ait. Hort. Kew. ed. 2. V. 193; Britt. & Br. Ill. Fl. I. 462; Robins. & Fern. in Gray's N. Man. ed. 7, 308.

*Platanthera convallariaefolia* Lindl. l. c. 287.

*Platanthera dolichorhiza* Rchb. f. Ic. Fl. Germ. XIII–XIV. 127, t. 80.

*Habenaria borealis* Cham. in Linnaea, III. 28.

*Platanthera borealis* Rchb. f. l. c. 125, t. 79.

*Platanthera Makinoi* Kudo, Fl. Paramushir, 95, non Yabe.

NOM. JAP. *Yubari-chidori*.

HAB. *Yezo*. Ishikari.

*Kuriles*. Shikotan, Etorofu, Urup, Shimushir, Ketoi, Rashua, Matsuwa, Paramushir.

DISTRIB. Kuriles, Yezo, Kamtschatka, Aleutians, North America and Iceland.

### *Habenaria* Willd.

**727. *Habenaria sagittifera*** Rchb. f., in Bot. Zeit. (1845) 334; Miq. Prol. Fl. Jap. 140, excl. syn.; Fr. et Sav. Enum. Pl. Jap. II. 33, excl. Syn.; Matsum. Ind. Pl. Jap. II. 1: 250, excl. Syn.; Matsuda, in Tokyo Bot. Mag. XXV. (64); Schltr. Orchideol. Sino-Jap. Prodr. 134; Mak. & Nem. Fl. Jap. ed. 2. 1652.

*Habenaria tosaensis* Makino, in Tokyo Bot. Mag. VI. 48, et ibidem XXV. (230); Matsum. l. c. 251.

*Habenaria Oldhami* Kränzl. in Engl. Bot. Jahrb. XVI. 205; Matsum. l. c. 250.

*Habenaria sagittifera* Rchb. f. form. *integra* Matsuda, l. c. (65).

*Habenaria sagittifera* Rchb. f. var. *Reichenbachiana* Takeda, in Tokyo Bot. Mag. XXIX. (391).

NOM. JAP. *Sawa-tombo, Mizu-tombo, Aoyagiso, Aotombo.*

HAB. *Yezo.* Oshima, Iburi, Ishikari, Teshio.

DISTRIB. *Yezo, Honshu, Shikoku and Kyushu.*

***Neottia* Sw.**

**728. *Neottia Nidus-avis*** Rich. in Mém. Mus. Paris IV. 59; Ledeb. Fl. Ross. IV. 81; Fr. Schm. Fl. Sachal. 183; Pfitz. in Engl. u. Pr. Nat. Pfl.-fam. II. 6: 114, *f. 114*; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 892; Finet, in Bull. Soc. Bot. de France, XLVII. 270; Makino, in Tokyo Bot. Mag. XVI. 176; Kom. Fl. Mansh. I. 528; Matsum. Ind. Pl. Jap. II. 1: 255; Hegi, Ill. Fl. Mittel-Europ. II. 388; Miyabe & Miyake, Fl. Saghal. 422; Schltr. Orchideol. Sino-Jap. Prodr. 140; Tatewaki, Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. ed. 2. 1660.

*Ophrys Nidus-avis* L. Sp. Pl. ed. 1, 945.

*Neottia kamtschatica* Kawakami, in Tokyo Bot. Mag. XIII. 266; Makino, ibidem XIX. 184, non Spreng.

NOM. JAP. *Sakaneran.*

HAB. *Yezo.* Iburi, Hidaka, Ishikari, Kitami, Kushiro.

*Southern Saghalien.* Ushoro.

DISTRIB. *Saghalien, Yezo, Honshu, Korea, Amur, Siberia, Caucasus and Europe.*

**729. *Neottia asiatica*** Ohwi, in Tokyo Bot. Mag. XLV. 384.

*Neottia micrantha* Lindl. Gen. Sp. Orchid. 458; Ledeb. Fl. Ross. IV. 82; Benth. et Hook. f. Gen. Pl. III. 595; Makino, in Tokyo Bot. Mag. XIV. 184, et ibidem XVI. 177; Finet, in Bull. Soc. Bot. France, XLVII. 270; Kom. Fl. Mansh. I. 528; Forb. et Hemsl. Ind. Fl. Sin. III. 40; Matsum. Ind. Pl. Jap. II. 1: 254; Takeda, in Tokyo Bot. Mag. XXIV. 135; Nakai, Fl. Korea. II. 230; Miyabe & Miyake, Fl. Saghal. 443; Schltr. Orchideol. Sino-Jap. Prodr. 140; Mak. & Nem. Fl. Jap. ed. 2. 1660; Hult. Fl. Kamtch. I. 269, (non La Llave et Lex.)

*Neottia kamtschatica* Kom. Fl. Pen. Kamtsch. I. 321, non Spreng. (fide Hultén).

NOM. JAP. *Hime-muyoran.*

HAB. *Yezo*. Rishiri.

*Southern Saghalien*. Odomari, Mauka, Toyohara, Motodomari.

DISTRIB. Saghalien, *Yezo*, Honshu, Korea, Manchuria, Ussuri, Kamtchatka and China.

*Listera* R. Br.

**730. *Listera cordata*** R. Br. in Ait. Hort. Kew. ed. 2, V. 201; Endl. Gen. et Sp. Orch. 456; Ledeb. Fl. Ross. IV. 80; Bl. Coll. Orchid. Archip. Ind. et Jap. 136; Maxim. Prim. Fl. Amur. 269; Miq. Prol. Fl. Jap. 141; Fr. Schm. Fl. Sachal. 183; Fr. et Sav. Enum. Pl. Jap. II. 36; Britt. & Br. Ill. Fl. I. 473; Makino, in Tokyo Bot. Mag. XII. 66, et ibidem XIX. 12; Kawakami, in Tokyo Bot. Mag. XII. (268); Finet, in Bull. Soc. Bot. France, XLVII. 271; Matsum. Ind. Pl. Jap. II. 1: 253; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 890; Takeda, Fl. Shikotan, 487; Hegi, Ill. Fl. Mitteleurop. II. 387, *t. 68, f. 25, t. 76, f. 3*; Miyabe & Miyake, Fl. Saghal. 444; Kudo, Fl. Paramushir, 95; Schltr. Orchideol. Sino-Jap. Prodr. 141; Printz. Veg. Sib. Mong. Front. 189; Tatewaki, Veg. Mt. Apoi, 76; Hult. Fl. Kamtch. I. 268; Kom. Fl. Pen. Kamtsch. I. 320; Mak. & Nem. Fl. Jap. ed. 2. 1657.

*Ophrys cordata* L. Sp. Pl. ed. 1, 946.

NOM. JAP. *Ko-futaba-ran*, *Futaba-ran*, *Futaba-gusa*.

HAB. *Yezo*. Iburi, Hidaka, Ishikari, Kitami, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup, Ketoi, Matsuwa, Paramushir.

*Southern Saghalien*. Odomari, Mauka, Toyohara.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Amur, Kamtchatka, Siberia, Caucasus, Europe and North America.

**731. *Listera Savatieri*** Maxim. apud Kom. Fl. Mansh. I. 526; Makino, in Tokyo Bot. Mag. XIX. 7; Miyabe & Miyake, Fl. Saghal. 444; Schltr. Orchideol. Sino-Jap. Prodr. 142; Mak. & Nem. Fl. Jap. ed. 2. 1657.

*Listera Eschscholtziana* Maxim. Prim. Fl. Amur. 269; Fr. Schm. Fl. Sachal. 183; Makino, in Tokyo Bot. Mag. VII. 69, non Cham.

*Listera japonica* Fr. et Sav. Enum. Pl. Jap. II. 37, non Bl.

*Listera puberula* K. M. Wieg., in Bull. Torr. Bot. Club. XXV. 150, *t. 356*, non Maxim.

*Ophrys Savatieri* Makino, in Jour. Jap. Bot. VI. 37.

NOM. JAP. *Aofutabaran*, *Futabaran*.

HAB. *Yezo*. (fide Schlechter).

*Southern Saghalien*. Odomari, Ushoro.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Yezo, Honshu, Shikoku, Kyushu, Korea and Amur.

**732. *Listera nipponica*** Makino, in Tokyo Bot. Mag. XIX. 9; Takeda, in Tokyo Bot. Mag. XXIV. 132, et Fl. Shikotan, 487; Schltr. Orchideol. Sino-Jap. Prodr. 142; Mak. & Nem. Fl. Jap. ed. 2. 1657; Tatewaki, Veg. Distr. Akan, 57.

*Listera Eschscholtziana* Kawakami, in Tokyo Bot. Mag. XII. (268); Matsum. Ind. Pl. Jap. II. 1: 253, p. p., quoad pl. Meakan lect., non Cham.

*Ophrys nipponica* Makino, in Jour. Jap. Bot. VI. 34.

NOM. JAP. *Miyama-futabaran*.

HAB. *Yezo*. Shiribeshi, Ishikari, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu, Urup.

DISTRIB. Kuriles, Yezo and Honshu.

### *Pogonia* Juss.

**733. *Pogonia japonica*** Rchb. f. in Linnaea, XXV. 228; Makino, in Tokyo Bot. Mag. XII. 103; Matsum. Ind. Pl. Jap. II. 1. 262; Nakai, Fl. Korea. II. 227; Schltr. Orchideol. Sino-Jap. 144; Mak. & Nem. Fl. Jap. ed. 2. 1673.

*Pogonia similis* Bl. Orchid. Ind. et Jap. (1852) 148, t. 32, f. 4, A-B, et t. 54, a. 1-8.

*Pogonia ophioglossoides* A. Gray, Bot. Jap. 409; Miq. Prol. Fl. Jap. 140; Fr. et Sav. Enum. Pl. Jap. II. 34; Engl. Vers. Entwicklungsgesch. Pfl.-welt. I. 21; Hance, in Jour. Bot. (1885) 247; Korsh. Pl. Amur. 523; Kom. Fl. Mansh. I. 522; Forb. et Hemsl. Ind. Fl. Sin. III. 47, non Nutt.

*Pogonia ophioglossoides* Nutt. var. *japonica* Maxim. aqud Makino, in Tokyo Bot. Mag. XII. 103; Kom. Fl. Mansh. I. 523.

*Pogonia ophioglossoides* Nutt. var. *japonica* Finet, in Bull. Soc. Bot. France, XLVII. 273.

NOM. JAP. *Tokiso*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Teshio, Tokachi, Kushiro.

*Kuriles*. Kunashiri.

DISTRIB. Kuriles, Yezo, Honshu, Korea, Manchuria, Amur and China.

**734. *Pogonia minor*** Makino, in Tokyo Bot. Mag. XXIII. 137; Mak. & Nem. Fl. Jap. ed. 2. 1673.

*Pogonia japonica* var. *minor* Makino, in ibidem XII. 103; Yabe, in ibidem XVII. 143; Matsum. Ind. Pl. Jap. II. 1: 262; Schltr. Orchid. Sino-Jap. 144.

NOM. JAP. *Yamatokiso*.

HAB. *Yezo*. Oshima, Iburi.

DISTRIB. Yezo, Honshu, Shikoku, Kyushu and Tsushima.

#### *Galeola* Lour.

**735. *Galeola septentrionalis*** Rchb. f. Xenia Orchid. II. 78; Maxim. in Mél. Biol. VIII. 647; Fr. et Sav. Enum. Pl. Jap. II. 39; Finet, in Bull. Soc. Bot. France, XLVII. 270; Yabe, in Tokyo Bot. Mag. XVII. 143; Matsum. Ind. Pl. Jap. II. 1: 246; Takeda, in Tokyo Bot. Mag. XXIV. 156; Schltr. Orchideol. Sino-Jap. 145; Mak. & Nem. Fl. Jap. ed. 2. 1644.

NOM. JAP. *Tsuchi-akebi*, *Yama-togarashi*, *Yama-shakujo*.

HAB. *Yezo*. Oshima, Ishikari.

DISTRIB. Yezo, Honshu, Shikoku and Kyushu.

#### *Epipactis* Adans.

**736. *Epipactis papillosa*** Fr. et Sav. Enum. Pl. Jap. II. 519; Wettst. in Oestr. Bot. Zeitsch. XXXIX. 428; Matsum. Ind. Pl. Jap. II. 1: 244; Nakai, Fl. Korea. II. 222; Schltr. Orchideol. Sino-Jap. 148; Hult. Fl. Kamtch. I. 267; Tatewaki, Veg. Mt. Apoi, 76.

*Epipactis latifolia* var. *papillosa* Maxim. apud Kom. Fl. Mansh. I. 523; Kawakami, in Tokyo Bot. Mag. XIV. 107; Takeda, in Tokyo Bot. Mag. XXV. 20; Miyabe & Miyake, Fl. Saghal. 446; Kudo, Rep. Veg. N. Saghal. 95; Mak. & Nem. Fl. Jap. ed. 2. 1639; Kom. Fl. Penn. Kamtsch. I. 318.

*Epipactis latifolia* Fr. Schm. Fl. Sachal. 184; Finet, in Bull. Soc. Bot. France, XLVII. 275; Koidz. Pl. Sachal. 41, non All.

*Limodorum papillosum* O. Ktze. Rev. Gen. 671.

*Helleborine papillosa* Druce, in Bull. Torr. Bot. Club, XXXVI. 547.

*Serapias papillosa* Makino, in Journ. Jap. Bot. VI. 8, et VII. 31.

NOM. JAP. *Yezo-suzuran*, *Ao-suzuran*.

HAB. *Yezo*. Oshima, Okushiri, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Rishiri, Kitami, Tokachi, Kushiro, Nemuro.

*Kuriles*. Kunashiri, Etorofu.

*Southern Saghalien*. Odomari, Tomarioro, Ushoro, Toyohara.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kyushu, Korea, Manchuria and Kamtchatka.

**737. *Epipactis longifolia*** Bl. Orchid. Archip. Ind. et Jap. 185, *t.* 64, *f.* 3; Schltr. Orchideol. Sino-Jap. Prodr. 148; Mak. & Nem. Fl. Jap. ed. 2. 1639.

*Serapias longifolia* Thunb. Fl. Jap. 28, non L.

*Epipactis Thunbergii* A. Gray, Pl. Jap. 319; Wettst. in Oester. Bot. Zeitschr. XXXIX. 428; Finet, in Bull. Soc. Bot. de France, XLVII. 276; Matsum. Ind. Pl. Jap. II. 1: 245; Takeda, in Tokyo Bot. Mag. XXIV. 260; Nakai, Fl. Korea. II. 222, et in Tokyo Bot. Mag. XXXVIII. (154); Mak. & Nem. Fl. Jap. 1169.

*Epipactis gigantea* Fr. et Sav. Enum. Pl. Jap. II. 519; Yabe, in Tokyo Bot. Mag. XVIII. 143; Kom. Fl. Mansh. I. 524; Nakai, Fl. Korea. II. 222; Forb. et Hemsl. Ind. Fl. Sin. III. 49, non Dougl.

*Limodorum Thunbergii* O. Ktze. Rev. Gen. 71.

*Helleborine Thunbergii* Druce, in Bull. Torr. Bot. Club, XXXVI. 547.

NOM. JAP. *Sawa-ran*, *Kakiran*, *Suzu-ran*.

HAB. *Yezo*. Oshima, Shiribeshi, Ishikari, Teshio.

DISTRIB. Yezo, Honshu, Shikoku, Kyushu and Korea.

### ***Cephalanthera*** L. C. Rich.

**738. *Cephalanthera subaphylla*** Miyabe et Kudo, sp. nov.

Herba terrestis, 8–24 cm alta, radicibus plus minusve crassioribus fusco-puberulis deorsum patentibus leviter flexuosis. Caulis gracilis, erectus vel adscendens, 2–3-foliatus, glaber, striatus, inferne vaginis paucis amplectentibus et apiculatis obtectus. Folia minuta, lanceolata vel elliptico-oblonga, apice obtusa, basi longe vaginata, utrinque glabra, concoloria vel subtus paulo pallidiora, laminae 1.2–2.0 cm longis et 2.5–8 mm latis. Racemus erectus, brevis, laxe pauci-florus, bracteis foliaceis et ovario multo longioribus vel minutis et ovario multo brevioribus, floribus pro caule majoribus ca. 1.3 cm longis. Sepala oblongo-lanceolata, apice subacuta, ca. 8 mm. longa, trinervia. Petala lanceolato-oblonga, sepalis fere aequilonga. Labellum trilobatum, lobis lateralibus oblique ovato-deltaideis apice rotundatis, lobo intermedio transversim-reniformi basi cucullato-concavo 4–5 mm lato ca. 3 mm. longo apice breviter et obtuse apiculato medio lamellis 5 medianis carunculato-incrassatis notato. Columna recta, glabra, ca. 4 mm. longa. Ovarium gracile, glabrum, ca. 9–12 mm. longum.

NOM. JAP. *Yushun-ran*.

HAB. *Yezo*. Iburi, Mororan (K. Miyabe, June 12, 1900, the type specimen). Ishikari, Nopporo (S. Imai, June 1931).

DISTRIB. Endemic species.

This is a striking species of *Cephalanthera*, easily distinguished from other species of the genus by the subaphyllous stem, foliaceous bracts and comparatively large erect white flowers. The Japanese name is named in memory of Prof. Yushun Kudo, the joint author of the present paper, whose lamentable sudden death on Jan. 8, 1932 on account of the stricture of the heart has bereaved from among us of one of our most able and well-trained young botanists.

**739. *Cephalanthera erecta*** Lindl. Gen. et Sp. Orchid. 412; Bl. Coll. Orchid. Archip. Ind. et Jap. 188, *t.* 65, *f.* 2; Miq. Prol. Fl. Jap. 141; Fr. et Sav. Enum. Pl. Jap. II. 35; Makino, in Tokyo Bot. Mag. XII. (374); Kom. Fl. Mansh. I. 523; Finet, in Bull. Soc. Bot. France, XLVII. 275; Palib. Consp. Fl. Korea. III. 4; Forb. et Hemsl. Ind. Fl. Sin. III. 48; Nakai, Fl. Korea. II. 221; Schltr. Orchideol. Sino-Jap. Prodr. 150; Mak. & Nem. Fl. Jap. ed. 2. 1624.

*Serapias erecta* Thunb. Fl. Jap. 27, et Icon. Pl. Jap. *t.* 4.

*Epipactis erecta* Wettst. in Oester. Bot. Zeitsch. XXIX. 429; Matsum. Ind. Pl. Jap. II. 1: 243.

NOM. JAP. *Ginran, Hakusanran.*

HAB. *Yezo.* Oshima, Iburi, Hidaka, Ishikari, Kushiro.

DISTRIB. *Yezo, Honshu, Shikoku, Kyushu and Korea.*

**740. *Cephalanthera elegans*** Schltr. Orchideol. Sino-Jap. Prodr. 58, 150; Mak. & Nem. Fl. Jap. ed. 2. 1624.

NOM. JAP. *Yezo-ginran.*

HAB. *Yezo.* Oshima.

DISTRIB. Endemic species.

**741. *Cephalanthera longibracteata*** Bl. Orchid. Archip. Ind. et Jap. 188, t. 65, f. 3; Fr. et Sav. Enum. Pl. Jap. II. 36; Makino, in Tokyo Bot. Mag. XII. (374); Finet, in Bull. Soc. Bot. de France, XLVII. 275; Palib. Consp. Fl. Korea. III. 4; Nakai, Fl. Korea. II. 222; Schltr. Orchideol. Sino-Jap. Prodr. 151; Tatewaki, Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. 1155.

*Cephalanthera ensifolia* Rich. var. *longibracteata* Miq. Prol. Jap. 141.

*Epipactis longibracteata* Wettst. in Oester. Bot. Zeitschr. XXXIX. (1889) 424; Matsum. Ind. Pl. Jap. II. 1. 244; Takeda, in Tokyo Bot. Mag. XXIV. 260.

*Cephalanthera ensifolia* Finet, in Bull. Soc. Bot. France, XLVII. 274, non Rich.

*Epipactis longifolia* Takeda, in Tokyo Bot. Mag. XXIV. 260; Mak. et Nem. Fl. Jap. 1169, non Wettst.

*Serapias longibracteata* Eaton, in Proc. Biol. Soc. Wash. XXI. 67.

*Epipactis xiphophyllum* Koidz. in Tokyo Bot. Mag. XL. 336.

NOM. JAP. *Sasaba-ginran, Yezo-no-hakusanran.*

HAB. *Yezo.* Oshima, Shiribeshi, Iburi, Hidaka, Ishikari.

DISTRIB. *Yezo, Honshu and Korea.*

### ***Epipogum*** Gmel.

**742. *Epipogum aphyllum*** Swartz, Summ. Veg. Scand. 32; Sowerby, Engl. Bot. IX. 131, t. 1486; Boiss. Fl. Orient. V, 93; Hook. f. Fl. Brit. Ind.

VI. 124; Hegi, Ill. Fl. Mittel-Europ. II. 383, *t.* 76, *f.* 1; Makino, in Tokyo Bot. Mag. XVI. 175; Miyabe & Miyake, Fl. Saghal. 447; Schltr. Orchideol. Sino-Jap. Prodr. 152; Mak. & Nem. Fl. Jap. ed. 2. 1640; Hult. Fl. Kamtch. I. 268; Kom. Fl. Pen. Kamtsch. I. 319.

*Satyrium Epipogium* L. Sp. Pl. ed. 1, 945.

*Orchis aphylla* Schmidt, in May. Phys. Aufs. I. 240.

*Epipogon Gmelini* Fich. Orchid. Europ. Annot. 36; Rchb. f. Orchid. Germ. *t.* 116; Lindl. Gen. et Spec. Orchid. 383, et in Jour. Linn. Soc. Bot. I. 176; Bot. Mag. *t.* 4821; Ledeb. Fl. Ross. IV. 77; Fr. Schm. Fl. Sachal. 184.

*Epipogon* Gmel Fl. Sib. I. 12, *t.* 2, *f.* 2.

NOM. JAP. *Torakichiran*.

HAB. *Southern Saghalien*. Odomari, Ushoro, Motodomari.

DISTRIB. Saghalien, Honshu, China, Kamtchatka, Siberia, Western Temperate Himalaya, Caucasus and Europe.

### ***Gastrodia*** R. Br.

**743. *Gastrodia elata*** Bl. in Mus. Bot. Lugd. Bat. II. 174, et Orchid. Archip Ind. et Jap. 143, *t.* 53, *f.* 1; Miq. Prol. Fl. Jap. 140; Fr. et Sav. Enum. Pl. Jap. II. 34; Hook. f. Fl. Brit. Ind. VI. 122; Finet, in Bull. Soc. Bot. France, XLVII. 273; Forb. et Hemsl. Ind. Fl. Sin. III. 48; Matsum. Ind. Pl. Jap. II. 1: 246; Nakai, Fl. Korea. II. 228; Takeda, in Tokyo Bot. Mag. XXIV. 259; Schltr. Orchideol. Sino-Jap. Prodr. 156; Mak. & Nem. Fl. Jap. ed. 2. 1644; Tatewaki, Veg. Distr. Akan, 56.

NOM. JAP. *Onino-yagara*, *Nusubito-no-ashi*.

NOM. AINU. *Uninteku*, *Unintep*.

HAB. *Yezo*. Oshima, Okushiri, Iburi, Ishikari, Teshio, Kitami, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Korea, China and Tibet.

### ***Bletilla*** Rchb. f.

**744. *Bletilla japonica*** Schltr. in Fedde, Repert. X. 256, et Orchideol. Sino-Jap. Prodr. 158.

*Arethusa japonica* A. Gray, Bot. Jap. 409; Miq. Prol. Fl. Jap. 141; Fr.

et Sav. Enum. Pl. Jap. II. 35; Matsum. Ind. Pl. Jap. II. 1: 235; Takeda, in Tokyo Bot. Mag. XXIV. 132; Mak. & Nem. Fl. Jap. ed. 2. 1617.

NOM. JAP. *Sawaran, Asahiran, Okura.*

HAB. *Yezo.* Oshima, Iburi, Ishikari, Teshio.

*Kuriles.* Kunashiri.

DISTRIB. Kuriles, Yezo and Honshu.

### *Spiranthes* L. C. Rich.

**745. *Spiranthes sinensis*** Ames, Orch. II. 53; Schlcht. Orchideol. Sino-Jap. Prodr. 160; Nakai, Veg. Mt. Apoi, 79.

*Aristoteles spiralis* Lour. Fl. Cochinchin. ed. 1. II. 522.

*Neottia sinensis* Pers. Syn. II. 511.

*Neottia australis* R. Br. Prodr. Fl. Novae Holland. I. 319.

*Spiranthes pudica* Lindl. Collect. Bot. *t.* 30.

*Spiranthes australis* Lindl. Bot. Reg. X. sub. *t.* 823, et Gen. et Spec. Orchid. 464; Miq. Prol. Fl. Jap. 141; A. Gray, Pl. Jap. 320; Fr. Schm. Fl. Sachal. 183; Fr. et Sav. Enum. Pl. Jap. II. 37; Hook. f. Fl. Brit. Ind. VI. 102; Palib. Consp. Fl. Korea. III. 4; Diels, Fl. C. China, 269; Forb. et Hemsl. Ind. Pl. Sin. III. 41; Matsum. Ind. Pl. Jap. II. 1. 263; Matsum. et Hayata, Enum. Pl. Formos. 415; Nakai, Fl. Korea. II. 225; Takeda, Fl. Shikotan, 487; Miyabe & Miyake, Fl. Saghal. 445; Kudo, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 95; Mak. & Nem. Fl. Jap. 1204.

*Gyrostachys australis* Bl. Coll. Orchid. Archipel. Ind. 128, *t.* 37, *f.* 3, *t.* 38, *f.* 3.

*Neottia pudica* Sweet, Hort. Brit. ed. 2. 485.

*Spiranthes spiralis* Makino, in Journ. Jap. Bot. III. 25; Mak. & Nem. Fl. Jap. ed. 2. 1676.

NOM. JAP. *Nejibana, Mojizuri, Hidarimaki.*

HAB. *Yezo.* Oshima, Shiribeshi, Okushiri, Iburi, Hidaka, Ishikari, Teshio, Kitami, Rebun, Tokachi, Kushiro.

*Kuriles.* Kunashiri, Shikotan.

*Southern Saghalien.* Odomari, Toyohara, Shikka, Ushoro.

*Northern Saghalien.* Alexandrowsk, Tim.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Kyushu, Liukiu, Formosa,

Korea, Manchuria, China, Himalaya, India, Tibet, Assam, Afghanistan, Java, Australia and New Zealand.

***Goodyera*** R. Br.

**746. *Goodyera Maximowicziana*** Makino, in Tokyo Bot. Mag. XXIII. 137; Nakai, Fl. Korea. II. 226; Takeda, in Tokyo Bot. Mag. XXIV. 259; Schltr. Orchideol. Sino-Jap. Prodr. 164; Mak. & Nem. Fl. Jap. ed. 2. 1647; Nakai, Veg. Daisetsusan Mts. 61; Tatewaki, Pl. Teshio For. 47.

*Goodyera bifida* Maxim. in Mél. Biol. XII. 926; Makino, Ill. Fl. Jap. I. t. 37, a-b; Matsum. Ind. Pl. Jap. II. 1: 247; Nakai et Takeda, in Tokyo Bot. Mag. XXIII. 50, non Bl.

*Goodyera foliosa* Benth. var. *laevis* Finet, in Bull. Soc. Bot. France XLVII. 272.

*Peramium Maximowiczianum* Makino, in Jour. Jap. Bot. VI. 36.

NOM. JAP. *Akebono-shusuran*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Ishikari, Teshio.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and Korea.

**747. *Goodyera repens*** R. Br. in Ait. Hort. Kew. ed. 2, V. 198; Lindl. Gen. et Spec. Orchid. 492; Ledeb. Fl. Ross. IV. 86; Maxim. Prim. Fl. Amur. 270, et in Mél. Biol. XII. 927; Fr. Schm. Fl. Sachal. 183; Hook. f. Fl. Brit. Ind. VI. 111; Kom. Fl. Mansh. I. 529; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 859; Makino, in Tokyo Bot. Mag. XIX. (187); Matsum. Ind. Pl. Jap. II. 1: 248; Forb. et Hemsl. Ind. Fl. Sin. III. 45; Finet, in Bull. Soc. Bot. Franc. XLVII. 272; Takeda, in Tokyo Bot. Mag. XXIV. 259; Hegi, Ill. Fl. Mitteleurop. II. 390; Miyabe & Miyake, Fl. Saghal. 445; Schltr. Orchideol. Sino-Jap. Prodr. 166; Printz, Veg. Sib. Mong. Front. 188; Hult. Fl. Kamtch. I. 269; Mak. & Nem. Fl. Jap. ed. 2. 1649; Kom. Fl. Pen. Kamtsch. I. 321.

*Satyrium repens* L. Sp. Pl. ed 1, 945.

*Peramium repens* Salisb. in Trans. Hort. Soc. I. 301; Brit. & Br. Ill. Fl. I. 474.

*Goodyera repens* R. Br. var. *japonica* Nakai, Veg. Mt. Apoi, 79.

NOM. JAP. *Hime-miyama-usura*.

HAB. *Yezo*. Okushiri, Shiribeshi, Ishikari, Hidaka, Kushiro.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Ushoro, Toyohara, Motodomari, Shikka.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Amur, Ussuri, Siberia, Kamtchatka, China, Tibet, Himalaya, Europe and North America.

**748. *Goodyera pendula*** Maxim. in Bull. Acad. Sc. St. Pétersb. XXXII. 623, et in Mél. Biol. XII. 924; Matsum. Ind. Pl. Jap. II. 1: 247; Schltr. Orchideol. Sino-Jap. Prodr. 166; Mak. & Nem. Fl. Jap. ed. 2. 1648.

*Epipactis pendula* Eaton, in Proc. Biol. Soc. Wash. XXI. (1908) 65.

*Peranimum pendulum* Makino, in Jour. Jap. Bot. VI. 36.

NOM. JAP. *Tsuri-shusuran*.

HAB. *Yezo*. Oshima, Ishikari, Kushiro.

DISTRIB. Yezo, Honshu, Shikoku and Kyushu.

#### ***Myrmechis*** Bl.

**749. *Myrmechis japonica*** Rolfe, in Jour. Linn. Soc. XXXVI. 44; Schltr. Orchideol. Sino-Jap. Prodr. 174; Mak. & Nem. Fl. Jap. ed. 2. 1660; Nakai, Veg. Daisetsusan Mts. 61.

*Myrmechis gracilis* Fr. et Sav. Enum. Pl. Jap. II. 39; Finet, in Bull. Soc. Bot. France, XLVII. 272; Matsum. Ind. Pl. Jap. II. 1: 254, non Bl.

*Rhamphidia japonica* Reichb. f. in Bot. Zeit. XXVI. 39.

NOM. JAP. *Aridoshiran*.

HAB. *Yezo*. Oshima, Iburi, Ishikari, Kushiro.

*Kuriles*. Kunashiri, Etorofu.

DISTRIB. Kuriles, Yezo and Honshu.

#### ***Microstylis*** Nutt.

**750. *Microstylis monophyllos*** Lindl. Gen. Sp. Orchid. 19; Ledeb. Fl. Ross. IV. 50; Rgl. et Til. Fl. Ajan. 121; Miyabe, Fl. Kuril. 262; Makino, in Tokyo Bot. Mag. XI. (413); Kom. Fl. Mansh. I. 530; Finet, in Bull. Soc. Bot. France, XLVII. 263; Forb. et Hemsl. Ind. Fl. Sin. III. 5;

Matsum. Ind. Pl. Jap. II. 1: 254; Hegi, Ill. Fl. Mitteleurop. II. 392; Nakai, Fl. Korea. II. 228; Takeda, Fl. Shikotan, 487; Miyabe & Miyake, Fl. Saghal. 538; Schltr. Orchideol. Sino-Jap. Prodr. 192; Kudo, Contr. Fl. N. Saghal. 29, et Rep. Veg. N. Saghal. 96; Mak. & Nem. Fl. Jap. ed. 2. 1659; Hult. Fl. Kamtsch. I. 270; Tatewaki, Veg. Distr. Akan, 57.

*Ophrys monophyllos* L. Sp. Pl. ed. 1, 947.

*Malaxis monophylla* Sw. in Act. Holm. (1800) 234; Kom. Fl. Pen. Kamtsch. I. 322.

*Achroanthus monophyllos* Greene, Pittonia II. 183; Aschers. u. Graebn. Syn. Mitteleurop. Fl. III. 905; Britt. & Br. Ill. Fl. I. 475.

*Microstylis diphyllus* Lindl. Gen. Sp. Orch. 19; Ledeb. Fl. Ross. IV. 50.

*Liparis inconspicua* Makino, in Tokyo Bot. Mag. XI. (413).

*Acroanthus monophyllos* Greene, form. *diphyllus* Koidz. in Matsum. Icon. Koishikav. III. 27, t. 159.

NOM. JAP. *Hozaki-ichiyoran*, *Ichiyoran*.

HAB. *Yezo*. Shiribeshi, Iburi, Ishikari, Tokachi, Kushiro, Nemuro.

*Kuriles*. Shikotan, Etorofu, Urup.

*Southern Saghalien*. Odomari.

*Northern Saghalien*. Alexandrowsk.

DISTRIB. Saghalien, Kuriles, Yezo, Honshu, Korea, Manchuria, Tibet, China, Siberia, Europe and North America.

### ***Liparis*** L. C. Rich.

**751. *Liparis sachalinensis*** Nakai, in Tokyo Bot. Mag. XLV. 108; Mak. & Nem. Fl. Jap. ed. 2. 1656.

*Liparis Loeselii* Koidz. Pl. Sachal. 44; Miyabe & Miyake, Fl. Saghal. 437; Mak. & Nem. Fl. Jap. 1184, non Rich.

NOM. JAP. *Hosoba-kumokiriso*.

HAB. *Southern Saghalien*. • Toyohara.

DISTRIB. Endemic.

**752. *Liparis Makinoana*** Schltr. Orchideol. Sino-Jap. Prodr. 63, 200; Mak. & Nem. Fl. Jap. ed. 2. 1655.

*Liparis liliifolia* A. Gray, Bot. Jap. 409; Miq. Prol. Fl. Jap. 386; Fr.

et Sav. Enum. Pl. Jap. II. 21; Ridley, in Jour. Linn. Soc. Bot. XXII. 269, p. p.; Finet, in Bull. Soc. Bot. France XLVII. 263; Kom. Fl. Mansh. I. 532; Matsum. Ind. Pl. Jap. II. 1: 252; Nakai, Fl. Korea. II. 224; Mak. & Nem. Fl. Jap. 1184, non Rich.

NOM. JAP. *Suzumushiso*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari, Teshio, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Korea and Manchuria.

**753. *Liparis japonica*** Maxim. in Bull. Acad. Sc. Pétersb. XXXI. 102, et in Mém. Biol. XII. 544; Ridley, in Jour. Linn. Soc. Bot. XXII. 273; Finet, in Bull. Soc. Bot. France XLVII. 262; Matsum. Ind. Pl. Jap. II. 1: 251; Kom. Fl. Mansh. I. 531; Nakai, Fl. Korea. II. 224; Schltr. Orchideol. Sino-Jap. Prodr. 198; Tatewaki, Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. ed. 2. 1654.

*Microstylis japonica* Miq. Prol. Fl. Jap. 135; Fr. et Sav. Enum. Pl. Jap. II. 21; Kränzl. in Engl. Bot. Jahrb. VI. 54.

*Leptorchis japonica* O. Ktze. Rev. Gen. Pl. 671.

NOM. JAP. *Seitaka-suzumushi*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Korea, Manchuria and Amur.

**754. *Liparis auriculata*** Bl. ex Miq. Prol. Fl. Jap. 135; Fr. et Sav. Enum. Pl. Jap. II. 22; Makino, in Tokyo Bot. Mag. XI. (73); Ridley, in Jour. Linn. Soc. Bot. XXII. 267; Matsum. Ind. Pl. Jap. II. 1: 251; Takeda, in Tokyo Bot. Mag. XXV. 20; Schltr. Orchideol. Sino-Jap. Prodr. 196; Tatewaki, Veg. Mt. Apoi, 76; Mak. & Nem. Fl. Jap. ed. 2. 1653.

*Liparis japonica* Finet, in Bull. Soc. Bot. France XLVII. 262; Miyabe et Miyake, Fl. Saghal. 438, non Maxim.

NOM. JAP. *Kumokiriso*, *Takanoha*, *Kumochiriso*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Nemuro.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Todomoshiri.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Shikoku and Kyushu.

**755. *Liparis Kramri*** Fr. et Sav. Enum. Pl. Jap. II. 22, 509; Makino, in Tokyo Bot. Mag. III. 7; Ridley, in Jour. Linn. Soc. XXII. 269; Finet, in Bull. Soc. Bot. France XLVII. 262; Matsum. Ind. Pl. Jap. II. 1: 252; Nakai, Fl. Korea. II. 224; Miyabe & Kudo, Mater. Fl. Hokkaido, n. 51, in Trans. Sapporo Nat. Hist. Soc. VI. 4; Schltr. Orchideol. Sino-Jap. Prodr. 199; Mak. & Nem. Fl. Jap. ed. 2. 1654; Tatewaki, Veg. Distr. Akan, 57.

*Leptorchis Kramerii* O. Ktze. Rev. Gen. 171.

NOM. JAP. *Jigabachiso*.

HAB. *Yezo*. Iburi, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku and Korea.

### ***Oreorchis*** Lindl.

**756. *Oreorchis patens*** Lindl. in Jour. Linn. Soc. Bot. III. 27; Miq. Prol. Fl. Jap. 358; Rgl. Tent. Fl. Ussuri. 146, *t. 11, f. 1-7*; Fr. et Sav. Enum. Pl. Jap. II. 27; Finet, in Bull. Soc. Bot. France, XLVII. 264; Kom. Fl. Mansh. I. 533; Matsum. Ind. Pl. Jap. II. 1: 256; Miyabe & Miyake, Fl. Saghal. 411; Schltr. Orchideol. Sino-Jap. 224; Mak. & Nem. Fl. Jap. ed. 2. 1664; Hult. Fl. Kamtch. I. 271; Kom. Fl. Pen. Kantsch. I. 323; Tatewaki, Veg. Mt. Apoi, 77.

*Corallorhiza patens* Lindl. Gen. et Sp. Orchid. 535.

*Oreorchis lancifolia* A. Gray, Bot. Jap. 410.

NOM. JAP. *Kokei-ran*, *Sasa-ebine*.

HAB. *Yezo*. Oshima, Okushiri, Shiribeshi, Iburi, Hidaka, Ishikari, Tokachi.

*Kuriles*. Kunashiri, Etorofu, Urup.

*Southern Saghalien*. Odomari, Toyohara, Ushoro.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Amur, Ussuri, Kamtchatka, China and Tibet.

var. ***gracilis*** Finet, in Bull. Soc. Bot. France XLVII. 264; Schltr. Orchideol. Sino-Jap. Prodr. 224.

*Oreorchis gracilis* Fr. et Sav. Enum. Pl. Jap. II. 27, 512; Makino, Ill. Fl. Jap. I. *t. 21*.

*Oreorchis patens* Lindl. f. *gracilis* Makino, in Tokyo Bot. Mag. XII.

(16); Mak. & Nem. Fl. Jap. ed. 2. 1665.

NOM. JAP. *Hime-kokeiran*.

HAB. *Yezo*. Oshima, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

***Cremastra*** Lindl.

**757. *Cremastra variabilis*** Nakai, Veg. Daisetsusan Mts. 27.

*Hyacintorchis variabilis* Bl. Cent. Pl. Nov. (1829), 4.

*Cremastra mitrata* A. Gray, Bot. Jap. 411; Schltr. Orchideol. Sino-Jap. Prodr. 225; Mak. & Nem. Fl. Jap. ed. 2. 1627.

*Cremastra Wallichiana* Miq. Prol. Fl. Jap. 136; Fr. et Sav. Enum. Pl. Jap. II. 24; Finet, in Bull. Soc. Bot. France, XLVII. 269, non Lindl.

*Cremastra appendiculata* Makino, in Tokyo Bot. Mag. XVII. 24; Matsum. Ind. Pl. Jap. II. 1: 239; Miyabe & Miyake, Fl. Saghal. 441; Mak. & Nem. Fl. Jap. 1157.

NOM. JAP. *Saihai-ran*, *Hakkuri*.

NOM. AINU. *Nimakkotuk*.

HAB. *Yezo*. Oshima, Shiribeshi, Iburi, Hidaka, Ishikari, Teshio, Rebun, Kitami.

*Kuriles*. Kunashiri.

*Southern Saghalien*. Odomari.

DISTRIB. Saghalien, Kuriles, *Yezo*, Honshu, Shikoku and Kyushu.

**758. *Cremastra unguiculata*** Finet, in Bull. Soc. Bot. France, XLIV. 235, et XLVII. 269; Makino, in Tokyo Bot. Mag. XVII. 22; Matsum. Ind. Pl. Jap. II. 1: 239; Schltr. Orchideol. Sino-Jap. Prodr. 226; Mak. & Nem. Fl. Jap. ed. 2. 1628.

*Oreorchis unguiculata* Finet, l. c. XLIII. 698, t. 14, et XLIV. 70; Makino, in Tokyo Bot. Mag. XIII. (335).

NOM. JAP. *Tokenran*.

HAB. *Yezo*. Ishikari.

DISTRIB. *Yezo* and Honshu.

***Ehippianthus*** Rchb. f.

**759. *Ehippianthus Schmidtii*** Rchb. f. in Flora (1868) 33; Fr. Schm. Fl. Sachal. 222, *t. VI, f. 1-7*; Takeda, in Tokyo Bot. Mag. XXIV. 133, et Fl. Shikotan, 487; Miyabe & Miyake, Fl. Saghal. 439; Mak. & Nem. Fl. Jap. ed. 2. 1639.

*Ehippianthus sachalinensis* Rchb. f. apud Fr. Schm. Fl. Sachal. 180; Fr. et Sav. Enum. Pl. Jap. II. 510; Makino, in Tokyo Bot. Mag. XI. 413; Finet, in Bull. Soc. Bot. France XLVII. 263; Matsum. Ind. Pl. Jap. II. 1: 243; Schltr. Orchideol. Sino-Jap. Prodr. 227; Nakai, Veg. Daisetsusan Mts. 61.

*Liparis Schmidtii* Benth. in Jour. Linn. Soc. Bot. XVII. 294; Benth. et Hook. Gen. Pl. III. 495; Miyabe, Fl. Kuril. 262.

NOM. JAP. *Ko-ichiyoran*.

HAB. *Yezo*. Oshima, Shiribeshi, Okushiri, Iburi, Ishikari, Teshio, Kitami, Tokachi, Kushiro.

*Kuriles*. Kunashiri, Shikotan, Etorofu.

*Southern Saghalien*. Odomari, Toyohara.

DISTRIB. Saghalien, Kuriles, Yezo and Honshu.

***Dactylostalix*** Rchb. f.

**760. *Dactylostalix ringens*** Rchb. f. in Bot. Zeit. XXXVI. (1878) 74; Pfitzer, in Engl. u. Pr. Nat. Pfl.-fam. II. 6: 158; Miyabe & Kudo, Mater. Fl. Hokkaido n. 49, in Trans. Sapporo Nat. Hist. Soc. VI. 2; Schltr. Orchideol. Sino-Jap. Prodr. 228; Tatewaki, Veg. Distr. Akan, 58; Mak. & Nem. Fl. Jap. ed. 2. 1634.

*Pergamena uniflora* Finet, in Bull. Soc. Bot. de France, XLVII. 263, *t. 8*.

*Calypso japonica* Maxim. apud Kom. Fl. Mansh. I. 533.

NOM. JAP. *Hime-hitoharan*.

HAB. *Yezo*. Ishikari, Teshio, Kushiro.

DISTRIB. Yezo, Honshu and Shikoku.

**761. *Dactylostalix maculosa*** Miyabe et Kudo, Mater. Fl. Hokkaido, n. 50, in Trans. Sapporo Nat. Hist. Soc. VI. 3; Tatewaki, Veg. Mt. Apoi, 77;

Mak. & Nem. Fl. Jap. ed. 2. 1634.

*Dactyloctenium ringens* Makino, in Tokyo Bot. Mag. XI. (413); Matsum. Ind. Pl. Jap. II. 1: 242, non Rchb. f.

*Pergamena uniflora* Makino, in Inuma's Zotei Somoku Zusetsu IV. 1096, 1210; Miyoshi and Makino, Atl. Alp. Pl. Jap. I. *pl.* 5, *f.* 28; Takeda, in Tokyo Bot. Mag. XXIV. 135; Mak. & Nem. Fl. Jap. 1193, non Finet.

NOM. JAP. *Hitoharan, Ichiyoran.*

HAB. *Yezo.* Oshima, Hidaka.

DISTRIB. *Yezo* and Honshu.

### *Calypso* Salisb.

**762. *Calypso bulbosa*** Oakes, Cat. Vermont. Pl. (1842) 28; Rchb. f. Icon. Fl. Germ. XIII. (1851) 158, *t.* 137; Britt. & Br. Ill. Fl. I. 477; Takeda, in Tokyo Bot. Mag. XXIV. 136; Miyabe & Miyake, Fl. Saghal. 440; Kudo, Rep. Veg. N. Saghal. 96; Schltr. Orchideol. Sino-Jap. Prodr. 228; Mak. & Nem. Fl. Jap. ed. 2. 1623.

*Cypripedium bulbosum* L. Sp. Pl. ed. 1, 945.

*Calypso borealis* Salisb. Parad. Lond. t. 89; Lindl. Gen. et Sp. Orchid. 179; Cham. et Schl. in Linnaea, III. 34; Ledeb. Fl. Ross. IV. 52; Turcz. Fl. Baic. Dah. II. 175; Hook. Fl. Bor. Amer. II. 195; Trautv. et Mey. Fl. Ochot. 90; Rgl. et Til. Fl. Ajan. 121; Maxim. Prim. Fl. Amur. 267; Fr. Schm. Fl. Sachal. 181; Kom. Fl. Mansh. I. 532; Nakai, Fl. Korea. II. 230.

NOM. JAP. *Hime-hoteiran.*

HAB. *Southern Saghalien.* Odomari, Mauka, Ushoro, Shikka.

*Northern Saghalien.* Alexandrowsk.

DISTRIB. *Saghalien*, Korea, Manchuria, Amur, Ussuri, Ochotsk, Ajan, Siberia, Europe and North America.

### *Paracalanthe* Kudo

**763. *Paracalanthe reflexa*** Kudo, in Journ. Soc. Trop. Agric. II. 235, (1930).

*Calanthe reflexa* Maxim. in Bull. Acad. Peterbs. XVIII. (1873) 68, et in Mél. Biol. VIII. 644; Fr. et Sav. Enum. Pl. Jap. II. 26; Engl. Vers.

Entwicklungsgesch. Pfl.-welt. I. 21; Yabe, in Tokyo Bot. Mag. XVII. 143; Matsum. Ind. Pl. Jap. II. 1: 237; Schltr. Orchideol. Sino-Jap. Prodr. 241; Mak. & Nem. Fl. Jap. ed. 2. 1622.

*Alismorchis reflexa* O. Ktze. Rev. Gen. 65.

NOM. JAP. *Natsu-ebine*.

HAB. *Yezo*. Sine loco indicato (ex Engler); Okushiri.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu, Formosa and Korea.

**764. *Paracalanthe megalophora*** Miyabe et Kudo, nom. nov.

*Calanthe tricarinata* Maxim. in Mél. Biol. VIII. 644; Fr. et Sav. Enum. Pl. Jap. II. 26; Makino, Ill. Fl. Jap. I. t. 14; Matsum. Ind. Pl. Jap. II. 1. 238; Mak. & Nem. Fl. Jap. ed. 2. 1622, non Lindl.

*Calanthe megalophora* Franch. Pl. David. II. 123; Koidz. Fl. Symb. Or.-As. 36.

*Calanthe brevicornu* Lindl. var. *megalophora* Franch. apud Finet, in Bull. Soc. Bot. France XLVII. 266.

*Calanthe torifera* Schltr. Orchideol. Sino-Jap. Prodr. 68, 243; Mak. & Nem. l. c.

*Paracalanthe torifera* Kudo, in Journ. Soc. Trop. Agr. II. 236.

NOM. JAP. *Sarumen-ebine*, *Yezo-ebine*.

HAB. *Yezo*. Oshima, Iburi, Hidaka, Ishikari.

DISTRIB. *Yezo*, Honshu, Shikoku, Kyushu and China.

***Calanthe*** R. Br.

**765. *Calanthe discolor*** Lindl. Sert. Orchid. sub t. 9; Miq. Prol. Fl. Jap. 136; Maxim. in Mél. Biol. VIII. 642; Fr. et Sav. Enum. Pl. Jap. II. 25; Engl. Vers. Entwicklungsgesch. Pfl.-welt. I. 21; Kränzl. in Engl. Bot. Jahrb. VI. 54; Makino, Ill. Fl. Jap. I, t. 15; Matsum. Ind. Pl. Jap. II. 1: 236; Schltr. Orchideol. Sino-Jap. Prodr. 235; Mak. & Nem. Fl. Jap. ed. 2. 1619.

?*Calanthe striata* Finet, in Bull. Soc. Bot. France XLVII. 266, (non R. Br. quoad pl. Yesashi).

NOM. JAP. *Ebine*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

**766. *Calanthe nipponica*** Makino, in Tokyo Bot. Mag. XIII. 128; Matsum. Ind. Pl. Jap. II. 1: 237; Miyabe & Kudo, Mater. Fl. Hokkaido n. 47, in Trans. Sapporo Nat. Hist. Soc. VI. 2; Schltr. Orchideol. Sino-Jap. 240; Mak. & Nem. Fl. Jap. ed. 2. 1621.

*Calanthe trulliformis* King et Pr. var. *hastata* A. Finet, in Bull. Soc. Bot. France XLVII. 267.

NOM. JAP. *Kinseiran*, *Kinsei-ebine*.

HAB. *Yezo*. Iburi, Ishikari, Kushiro.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

#### ***Yoania*** Maxim.

**767. *Yoania japonica*** Maxim. in Mém. Biol. VIII. 647; Finet, in Bull. Soc. Bot. France XLVII. 274; Schltr. Orchideol. Sino-Jap. Prodr. 264; Mak. & Nem. Fl. Jap. ed. 2. 1682.

NOM. JAP. *Shokiran*.

HAB. *Yezo*. Oshima.

DISTRIB. *Yezo*, Honshu and Kyushu.

#### ***Cymbidium*** Sw.

**768. *Cymbidium virescens*** Lindl. Bot. Reg. Misc. (1838) 37; Schltr. Orchideol. Sino-Jap. Prodr. 272; Mak. & Nem. Fl. Jap. ed. 2. 1632.

*Cymbidium virens* Rchb. f. in Walp. Ann. VI. 626, *sphalm.*; Miq. Prol. Fl. Jap. 137; Fr. et Sav. Enum. Pl. Jap. II. 27; Yabe, in Tokyo Bot. Mag. XVII. 143; Matsum. Ind. Pl. Jap. II. 1: 241; Miyabe & Kudo, Mater. Fl. Hokkaido n. 48, in Trans. Sapporo Nat. Hist. Soc. VI. 2.

*Cymbidium Goeringii* Rchb. f. in Ann. Walp. III. (1852) 547.

NOM. JAP. *Shunran*, *Hokuro*.

HAB. *Yezo*. Okushiri.

DISTRIB. *Yezo*, Honshu, Shikoku and Kyushu.

## Explanation of the Plate V.

*Luzula Jimboi* Miyabe et Kudo.

1. Entire plants.
2. Spikelet. ( $\times 10$ ).
3. Flower with prophylla taken off. ( $\times 10$ ).
4. Flower with a part of perianth taken off, showing  
a pistil and stamens. ( $\times 10$ ).
5. Perianth with a stamen. ( $\times 10$ ).
6. Stamens. *a*, ventral view; *b*, lateral view. ( $\times 20$ ).
7. Cross section of the ovary. ( $\times 10$ ).
8. A part of stigma. ( $\times 166$ ).
9. Prophylla. *a*, dorsal view; *b*, ventral view. ( $\times 10$ ).
- 10, a-d. Tips of the perianth. ( $\times 20$ ).

