Preliminary Report on the Flora of Southern Hidaka, Hokkaido (Yezo). XVIII.

By

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89. *Convolvulaceae*.

Calystegia R. BROWN (nom. conserv.)

466^{(1)*} ***Calystegia Soldanella*** ROEMER et SCHULTES, Syst. Veg. IV, p. 184 (1819).

Syn. *Convolvulus Soldanella* LINNAEUS, Sp. Pl. ed. 1, I, p. 159 (1753).

Calystegia Soldanella R. BROWN ex LINK, Enum. Pl. Berol. I, p. 201 (1821).—MATSUMURA, Ind. Pl. Jap. II-2, p. 516 (1912).—NAKAI, Veg. Apoi p. 66 (1930).—MASAMUNE, Fl. & Geobot. Stud. Yakusima p. 382 (1934).

Nom. Jap. *Hama-hirugao*.

Hab. on sandy coasts at the foot of Mt. Apoi, etc. Fl. Jul.

Dist. Formosa, Liukiu, Kyushu, Shikoku, Honshu, Yezo, S. Kuriles, Korea, China, Manchuria, Europe, N. Africa, America and Australia.

R. BROWN did not make the combination, *Calystegia Soldanella*, in Prodr. Fl. Nov. Holl. p. 483 (1810).

467^{(2)**} ***Calystegia japonica*** CHOISY in ZOLLINGER, Syst. Verz. Ind. Archip. Jap. II, p. 130 & 132 (1854); non *Convolvulus japonica* THUNBERG.

Syn. *Calystegia Sepium* R. Br. var. *japonica* MAKINO in Bot. Mag. Tokyo IX, p. 312 (1895) excl. syn. THUNB.; XV, p. 94 (1901) excl. syn. THUNB.—MATSUMURA, Ind. Pl. Jap. II-2, p. 516 (1912).—HANDEL-MAZZETTI, Symb. Sinic. VII, p. 811 (1936).

Calystegia Sepium var. *japonica* f. *angustifolia* NAKAI in Bot. Mag. Tokyo XXIII, p. 107 (1909).

Calystegia subvolubilis DON f. *angustifolia* MAKINO et NEMOTO, Fl. Jap. ed. 2, p. 972 (1931).

Calystegia japonica var. *elongata* LIOU et LING in Contr. Lab. Bot. Acad. Peipg. I, p. 25, t. VI, f. 5 (1931); in Fl. Illust. N. Chine I, p. 27, t. IX, f. 3 (1931).

Calystegia japonica f. *angustifolia* MAKINO, in litt.

f. **major (MAKINO) MAKINO, in litt.

Syn. *Calystegia Sepium* var. *japonica* f. *major* MAKINO in IINUMA, Sômokudzusetsu ed. MAKINO, I, p. 289 (1907); in Bot. Mag. Tokyo XXI, p. 162 (1907).—MATSUMURA, l. c. (1912).

Calystegia subvolubilis DON f. *major* MAKINO et NEMOTO, l. c. (1931).

Calystegia japonica var. *integrifolia* LIOU et LING, l. c. p. 24, t. VI, f. 4 (1931); l. c. p. 27, pl. IX, f. 2 (1931).

Nom. Jap. *O-hirugao*.

Hab. at the foot of Mt. Apoi. Fl. Aug.

Dist. Honshu, Yezo, Korea, China and Manchuria.

90. *Cuscutaceae*.

Cuscuta L.

468⁽¹⁾ **Cuscuta japonica** CHOISY in ZOLLINGER, Syst. Verz. Ind. Archip. Jap. II, p. 130 & 134 (1854).—MATSUMURA, Ind. Pl. Jap. II-2, p. 517 (1912).

Nom. Jap. *Nenashi-kadzura*.

Hab. near Porosanushibetsu, Shoya, etc. Fl. Aug.—Sep.

Dist. Liukiu, Kyushu, Shikoku, Honshu, Yezo, Korea, China, Indo-China, Manchuria and Dahuria.

91. *Polemoniaceae*.

469⁽¹⁾ ***Polemonium caeruleum** LINNAEUS, Sp. Pl. ed. 1, I, p. 162 (1753).

*var. **yezoense** MIYABE et KUDO in Trans. Sapporo Nat. Hist. Soc. IV, p. 99 (1913) (ut subsp. *vulgare* BRAND var. *yezoense*).—TATEW., Veg. Apoi p. 107 (1928).—NAKAI, Veg. Apoi p. 66 (1930).

Nom. Jap. *Hana-shinobu*, *Yezo-no-hanashinobu*.

Hab. in forests at the foot of Mt. Apoi, Nikanbetsu valley and on grassy slopes near C. Erimo. Fl. Jun.—Jul.

Dist. Kyushu, Honshu and Yezo.

Some specimens from the Cape Erimo approach to var. *laxiflorum* MIYABE et KUDO in having narrower small leaflets.

92. *Borraginaceae*.

Cynoglossum L.

470⁽¹⁾ **Cynoglossum asperrium** NAKAI in Bot. Mag. Tokyo XXXVII, p. 6 (1923).

var. **yesoense** NAKAI, l. c. p. 7 (1923).

Syn. *Cynoglossum furcatum* (non WALLICH) MATSUMURA, Ind. Pl. Jap. II-2, p. 523 (1912) pro parte.

Nom. Jap. *Yezo-rurisô*, *Yezo-oni-rurisô* (MAKINO et NEMOTO 1925).

Hab. in the upper part of Horoman R., Nikanbetsu R. and Saruru.
Fl. Jul.

Dist. sp. Kyushu, Shikoku, Honshu, Yezo, S. Kuriles and S. Korea.

Eritrichium SCHRAD.

471⁽²⁾* ***Eritrichium nipponicum*** MAKINO in Bot. Mag. Tokyo XVII, p. 51 (1903).—MATSUMURA, Ind. Pl. Jap. II-2, p. 525 (1912).—MIYABE et KUDO in Trans. Sapporo Nat. Hist. Soc. VI, p. 6 (1915).—MIYABE et MIYAKE, Fl. Saghal. p. 334, pl. X, fig. 3-6 (1915).

Syn. *Hackelia nipponica* BRAND in FEDDE, Rep. Sp. Nov. XXII, p. 104 (1925); in ENGLER, Pfl.-reich IV-252, Ht. 97, p. 135 (1931).

*f. ***albiflorum*** (KOIDZUMI) HARA, comb. nov.

Syn. *Eritrichium nipponicum* var. *albiflorum* KOIDZUMI in Bot. Mag. Tokyo XXX, p. 80 (1916).—TATEW., Veg. Apoi p. 108 (1928).

Eritrichium yesoense NAKAI f. *albiflorum* NAKAI, Veg. Apoi p. 66 (1930).

Nom. Jap. *Shiobana-miyama-murasaki*, *Shiobana-yezoruri-murasaki* (NAKAI 1930).

Hab. in gravelly places in the upper part of Mt. Apoi (rare) and Mt. Horoman (not uncommon).

*f. ***yesoense*** (NAKAI) HARA, f. nov.

Syn. *Eritrichium nipponicum* (non MAKINO) TATEW., Veg. Apoi p. 107 (1928).

Eritrichium yesoense NAKAI, Veg. Apoi p. 66 (1930) nom. nud.

A typo in omnibus partibus densius canescenti-hirsutis, pilis rigidioribus, caulibus vulgo robustioribus differt.

Nom. Jap. *Yezo-ruri-murasaki* (NAKAI 1930).

Hab. in gravelly places in the upper part of Mt. Apoi, Mt. Pinneshiri and Mt. Moroman. Fl. Jul.—early Aug.

Dist. sp. Mid. Honshu, Yezo (prov. Hidaka and prov. Ishikari) and Saghalien.

This species is very closely related to *E. pectinatum* DC. and belongs without doubt to *Eritrichium*. Specimens of Mt. Apoi are densely covered with more rigid hairs than those of Honshu. But specimens of Mt. Yubari show intermediate characters, and those from Chikahoro in Saghalien agree well with Honshu specimens. In Mt. Horoman light blue-flowered form prevails and in Mt. Apoi I found an individual with lilac flowers.

Lithospermum L.

472⁽³⁾** ***Lithospermum erythrorhizon*** SIEBOLD et ZUCCARINI in Abh. math.-

phys. Kl. Akad. Wiss. Muenchen IV-3, p. 149 (1846).

Syn. *Lythospermum murasaki* SIEBOLD, Syn. Pl. Oecon. Jap. p. 32 (1830),
nom. seminud.

Lithospermum officinale L. var. *japonica* MIQUEL in Ann. Mus. Bot.
Lugd.-Bat. II, p. 94 (1865).

Lithospermum officinale β. *erythrorhizon* MAXIMOWICZ in Bull. Acad.
Imp. Sci. St.-Pétersb. XVII, p. 441 (1872).—MATSUMURA, Ind. Pl.
Jap. II-2, p. 525 (1912).

Lithospermum officinale subsp. *erythrorrhizon* HANDEL-MAZZETTI,
Symb. Sin. VII-4, p. 817 (1936).

Nom. Jap. *Murasaki*.

Hab. at the foot of Mt. Apoi. Fl. July—early Aug.

Dist. Kyushu, Shikoku, Honshu, Yezo, Korea, China, Manchuria,
Ussuri, Amur and Mongolia.

Mertensia ROTH. (nom. conserv.)

473⁽⁴⁾***Mertensia maritima** S. F. GRAY, Nat. Arr. Brit. Pl. p. 354 (1821).

Syn. *Pulmonaria maritima* LINNAEUS, Sp. Pl. ed. 1, I, p. 136 (1753).

Pneumaria maritima HILL, Veg. Syst. VII, p. 40, pl. 37, fig. 3 (1764).

Mertensia maritima LINK, Handb. Erkenn. nutz. häuf. vork. Gewäch.
I, p. 58 (1829).—G. DON, Gen. Syst. IV, p. 320 (1838).

*subsp. **asiatica** TAKEDA in Journ. Bot. XLIX, p. 222 (1911).—KUDO,
Fl. Param. p. 152 (1922).—HULTÉN, Fl. Kamt. IV, p. 85 (1930).—KOMAROV,
Fl. Penin. Kamt. III, p. 52 (1930).

Syn. *Mertensia maritima* (non G. DON) quoad pl. Jap.—MATSUMURA, Ind.
Pl. Jap. II-2, p. 526 (1912).

Mertensia asiatica MACBRIDE in Contr. Gray Herb. new ser. XLVIII,
p. 53 (1916).—NAKAI in Bot. Mag. Tokyo XXXVIII, p. [154] (1924);
Veg. Apoi p. 66 (1930).

Nom. Jap. *Hama-benkeisô*.

Hab. on sandy coasts at the foot of Mt. Apoi, between Shoya and
Saruru, etc. Fl. Jul.—Aug.

Dist. N. Honshu, Yezo, Kuriles, Saghalien, Korea, Ussuri, Ochotsk
and Kamtchatka.

Specimens from the Aleutian Is. (Atka), Anadyr and Anastasia belong
to the head form and those from the Bering Is. have intermediate characters
as Dr. HULTÉN had pointed out.

Myosotis L.

474⁽⁵⁾***Myosotis sylvatica** HOFFMANN, Deuts. Fl. I, p. 61 (1791); ed 2,
p. 85 (1800).—KUDO, Rep. Veg. N. Saghal. p. 207 (1924).—KOMAROV, Fl.

Penin. Kamt. III, p. 49 (1930).—HARA in Journ. Jap. Bot. XII, p. 164 (1936).

Syn. *Myosotis intermedia* (non LINK) MAKINO in Bot. Mag. Tokyo XVII, p. 53 (1903).—MATSUMURA, Ind. Pl. Jap. II-2, p. 526 (1912).—NAKAI, Veg. Apoi p. 66 (1930).

Myosotis alpestris F. W. SCHMIDT subsp. *asiatica* VESTERGREN apud HULTÉN, Fl. Kamt. IV, p. 80 (1930).

Nom. Jap. *Yezo-murasaki* (MAKINO 1903), *Miyama-wasurenasô* (MIYABE et MIYAKE 1915).

Hab. in the lower part of Mt. Apoi, Samani, etc. Fl. late May—early Jun.

Dist. Mid. & N. Honshu, Yezo, S. Kuriles, Saghalien, Korea, China, Manchuria, Amur, Mongolia, Dahuria, Kamtchatka, Siberia, Altai, Himalaya, Caucasus, Asia Minor, Europe and N. Africa.

93. *Verbenaceae*.

Callicarpa L.

475⁽¹⁾****Callicarpa japonica*** THUNBERG, Fl. Jap. p. 60 (1784).—MATSUMURA, Ind. Pl. Jap. II-2, p. 529 (1912).—NAKAI, Trees & Shrubs Jap. ed. 1, I, p. 334, f. 182 (1922); ed. rev., I, p. 452, f. 214 (1927); Fl. Sylv. Korea. XIV, p. 30, tab. 6 (1923); Veg. Apoi p. 67 (1930).—MOLDENKE in FEDDE, Rep. Sp. Nov. XL, p. 87 (1936).

Nom. Jap. *Murasaki-shikibu*.

Hab. in the lower part of Mt. Apoi. Fl. late Jul.

Dist. Formosa, Liukiu, Kyushu, Shikoku, Honshu, Yezo, Korea, Manchuria and China.

Caryopteris BUNGE.

476⁽²⁾****Caryopteris divaricata*** MAXIMOWICZ in Bull. Acad. Imp. Sci. St.-Pétersb. XXIII, p. 390 in adnota (1877).—NAKAI, Fl. Korea. II, p. 137 (1911).—MATSUMURA, Ind. Pl. Jap. II-2, p. 530 (1912).—TATEW., Veg. Apoi p. 108 (1928).—NAKAI, Veg. Apoi p. 67 (1930).

Syn. *Clerodendron divaricatum* SIEBOLD et ZUCCARINI in Abh. math.-phys.

Kl. Akad. Wiss. Muenchen IV-3, p. 154 (1846).

Nom. Jap. *Kariganesô*.

Hab. in the lower part of Mt. Apoi, Mt. Horoman, etc.

Dist. Kyushu, Honshu, Yezo, Korea and China.

Clerodendron L.

477⁽³⁾****Clerodendron trichotomum*** THUNBERG in Nova Acta Reg. Soc. Sci.

Upsal. III, p. 208 (1780); Fl. Jap. p. 256 (1784).—MATSUMURA, Ind. Pl. Jap. II-2, p. 532 (1912).—NAKAI, Trees & Shrubs Jap. ed. rev., I, p. 468, f. 221 (1927).—TATEW., Veg. Apoi p. 108 (1928).—NAKAI, Veg. Apoi p. 67 (1930).
Syn. *Siphonanthus trichotomus* NAKAI in Bot. Mag. Tokyo XXXVI, p. 24 (1922); Trees & Shrubs Jap. ed. 1, I, p. 345, f. 188 (1922); Fl. Sylv. Korea. XIV, p. 35, tab. 10 (1923).

Nom. Jap. *Kusagi*.

Hab. at the foot of Mt. Apoi, etc. Fl. Aug.

Dist. Formosa, Liukiu, Kyushu, Shikoku, Honshu, Yezo, Korea, Manchuria and China.

94. *Labiatae*.

Agastache CLAYTON.

478⁽¹⁾* **Agastache rugosa** O. KUNTZE, Rev. Gen. Pl. II, p. 511 (1891).—KUDO, Enum. Labiat. Kuril. et Yezo in Journ. Coll. Sci. Imp. Univ. Tokyo XLIII-8, p. 16 (1921); Labiat. Sino-Jap. Prodr. in Memoir. Fac. Sci. & Agr. Taihoku Imp. Univ. II-2, p. 220 (1929).—NAKAI, Veg. Apoi p. 67 (1930).

Syn. *Lophanthus rugosus* FISCHER et MEYER in Ind. Sem. Hort. Petrop. I, p. 31 (1835); in Linnaea X, Litt.-Ber. p. 94 (1836).—MATSUMURA, Ind. Pl. Jap. II-2, p. 542 (1912).—KOMAROV et KLOB.-ALISOVA, Key Pl. Far East. Reg. USSR. II, p. 899, tab. 272 (1932).

*f. **hypoleuca** (KUDO) HARA, comb. nov.

Syn. *Agastache rugosa* var. *hypoleuca* KUDO, l.c. (1921).—TATEW., Veg. Apoi p. 108 (1928).

Nom. Jap. *Kita-kawamidori* (KUDO 1921).

Hab. at the foot of Mt. Apoi, Shoya, etc. Fl. mid. Aug.—early Sep.

Dist. sp. Formosa, Kyushu, Honshu, Yezo, Korea, China and Manchuria.

The specimens of our district are densely pubescent on the under-surface of leaves and belong to f. *hypoleuca* which, however, passes gradually to the typical form.

Ajuga L.

479⁽²⁾** **Ajuga ciliata** BUNGE in Mém. Sav. Étrang. Acad. Sci. St.-Petersb. II, p. 125 (1833).

f. **Chaneti KUDO, Enum. Labiat. Kuril. et Yezo p. 4 (1921); Labiat. Sino-Jap. Prodr. p. 285 (1929).

Syn. *Ajuga Chaneti* LÉVEILLÉ et VANIOT ex LÉVEILLÉ in FEDDE, Rep. Sp. Nov. VIII, p. 258 (1910).

Nom. Jap. *Kai-jindô*.

Hab. at the foot of Mt. Apoi, Mt. Ruchishi, Shoya, etc. Fl. late Jun.—Jul.

Dist. Kyushu, Honshu, Yezo and China.

480⁽³⁾* **Ajuga yesoensis** MAXIMOWICZ ex FRANCHET et SAVATIER, Enum. Pl. Jap. II, p. 467 (1876).—KUDO, Enum. Labiat. Kuril. et Yezo p. 3 (1921) (f. *typica* KUDO); Labiat. Sino-Jap. Prodr. p. 279 (1929).—TATEW., Veg. Apoi p. 108 (1928) (f. *typica*).

Nom. Jap. *Nishiki-goromo*.

Hab. at the foot of Mt. Apoi, Shoya, Saruru-sandô, etc. Fl. late May—Aug.

Dist. Shikoku, Honshu and Yezo.

Amethystanthus NAKAI.

481⁽⁴⁾** **Amethystanthus inflexus** NAKAI in Bot. Mag. Tokyo XLVIII, p. 786 (1934).

Syn. *Ocimum inflexum* THUNBERG, Fl. Jap. p. 249 (1784).

Plectranthus inflexus VAHL ex BENTHAM, Labiat. Gen. et Sp. p. 711 (1832–36).—KUDO, Enum. Labiat. Kuril. et Yezo p. 53 (1921).

Isodon inflexus KUDO, Labiat. Sino-Jap. Prodr. p. 127 (1929).—MASAMUNE, Fl. & Geobot. Stud. Yakusima p. 393 (1934).

Nom. Jap. *Yama-hakka*.

Hab. at the foot of Mt. Apoi, Saruru, etc. Fl. Aug.

*var. **macrophyllus** NAKAI, l.c. p. 787 (1934).

Syn. *Plectranthus inflexus* γ. *macrophyllus* MAXIMOWICZ in Bull. Acad. Imp. Sci. St.-Petersb. XX, p. 453 (1875).—NAKAI, Veg. Apoi p. 67 (1930).

Plectranthus inflexus f. *macrophyllus* KUDO, l.c. p. 54 (1921).—TATEW., Veg. Apoi p. 109 (1928).

Isodon inflexus var. *macrophyllus* KUDO, l.c. p. 128 (1929).

Nom. Jap. *Ôba-yamahakka*.

Hab. at the foot of Mt. Apoi, Shoya, etc. Fl. Aug.—Sep.

Dist. sp. Kyushu, Shikoku, Honshu, Yezo, Korea, Manchuria and China.

Chelonopsis MIQUEL.

482⁽⁵⁾* **Chelonopsis subglabra** KOIDZUMI, Fl. Symb. Or.-Asia. p. 15 (1930).

Syn. *Chelonopsis moschata* MIQ. β. *subglabra* MIQUEL in Ann. Mus. Bot. Lugd.-Bat. II, p. 111 (1865).

*var. **jesoensis** (KOIDZUMI) HARA, comb. nov.

Syn. *Chelonopsis moschata* (non MIQUEL) KUDO, Enum. Labiat. Kuril. et Yezo p. 24 (1921); Medic. Pl. Hokkaido tab. 81 (1922); Labiat. Sino-Jap. Prodr. p. 151 (1929) pro parte.—TATEW., Veg. Apoi p. 108 (1928).—NAKAI, Veg. Apoi p. 67 (1930).

Chelonopsis Yagiharana HISAUCHI et MATSUNO var. *jesoensis* KOIDZUMI, l.c. p. 16 (1930).

Nom. Jap. *Yezo-jakôshô*.

Hab. in the lower part of Mt. Apoi, Samani, Saruru-sandô, etc. Fl. Aug.

Dist. N. Honshu and Yezo. sp. Shikoku and Honshu.

The specimens of Yezo have usually broader leaves than those of Honshu and Shikoku, but the hairiness on calyces and leaves varies considerably also in the plant of Honshu. *C. Yagiharana* which is limited in the middle part of Honshu has smaller and shorter leaves than *C. subglabra*, and the hairs on calyces and pedicels are patent and never curved as in the latter.

Clinopodium L.

483⁽⁶⁾***Clinopodium chinense** O. KUNTZE, Rev. Gen. Pl. II, p. 515 (1891).

*subsp. **grandiflorum** (MAXIMOWICZ) HARA in Journ. Jap. Bot. XII, p. 39 (1936).

*var. **parviflorum** HARA, l.c. p. 41, fig. 29 (1936).

Syn. *Satureia chinensis* (non BRIQUET) KUDO, Enum. Labiat. Kuril. et Yezo p. 37 (1921); Labiat. Sino-Jap. Prodr. p. 102 (1929).—NAKAI, Veg. Apoi p. 67 (1930).

Satureia chinensis a. *parviflora* KUDO, l.c. p. 38, t. II, fig. 25 a-c (1921) pro major. part.

Satureia chinensis β. *megalantha* KUDO, l.c. p. 39, t. II, fig. 25 d-f (1921) excl. syn.

Calamintha polycephala (non VANIOT) HANDEL-MAZZETTI in Acta Hort. Gotob. IX, p. 84 (1934) pro parte.

Nom. Jap. *Kurumabana*, *Oku-kurumabana* (KUDO).

Hab. at the foot of Mt. Apoi, etc. Fl. Jul.—Aug.

Dist. Kyushu, Shikoku, Honshu, Yezo, S. Kuriles and Korea.

var. **shibetchense KOIDZUMI in Bot. Mag. Tokyo XLIII, p. 387 (1929).—HARA, l.c. p. 43 (1936).

Syn. *Calamintha umbrosa* BENTH. var. *shibetchensis* LÉVEILLÉ in FEDDE, Rep. Sp. Nov. IX, p. 322 (1911).

Nom. Jap. *Yezo-kurumabana* (KOIDZUMI), *Yama-kurumabana*.

Hab. in shady places at the foot of Mt. Apoi, Mt. Ruchishi, etc. Fl. Jul.

Dist. Kyushu, Honshu, Yezo and Korea. (To be continued.)