

植 物 研 究 雜 誌
THE JOURNAL OF JAPANESE BOTANY

第十二卷 第五號 (通卷第百十七號) 昭和十一年五月發行

Ostericum and *Angelica* from Manchuria
and Korea (II)

auctore

M. KITAGAWA

北川政夫：滿鮮産やませり屬及ししうど屬植物ニ就テ (其二)

Sect. 3. **Euangelica** DE CANDOLLE, Prodr. IV. p. 167 (ut *Angelica* HOFFMANN sect. 1. *Euangelica* DE CANDOLLE) (1830).

Callisace FISCHER in HOFFMANN, Gen. Umbell. ed. 2. p. 170 (1816); DE CANDOLLE, l.c. p. 184 (1830); LEDEBOUR, Fl. Ross. II. p. 316 (1844-1846); BENTHAM & HOOKER, Gen. Pl. I. p. 220 (1867) sub *Angelica* LINNÆUS.

Angelophyllum RUPRECHT, Rev. Umbell. Kamtsch. p. 8 (1859); BENTHAM & HOOKER, l. c. p. 220 (1867) sub *Angelica* LINNÆUS.

Angelica sect. *Anisopleura* MAXIMOWICZ ex FR. SCHMIDT in MAXIMOWICZ, Prim. Fl. Amur. p. 127 (1859).

Porphyroscias MIQUEL in Ann. Mus. Bot. Lugd. Batav. III. p. 62 (1867); Prol. Fl. Jap. p. 250 (1866-1867).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE in ENGLER & PRANTL, Nat. Pfl.-fam. III. 8. p. 220 (1897); DE DALLA TORRE & HARMS, Gen. Siphon. p. 374 (1903).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 1. *Callisace* RUPRECHT ex DRUDE, l. c. p. 220 (1897).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 2. *Angelophyllum* BENTHAM & HOOKER ex DRUDE, l. c. p. 220 (1897).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 3. *Anisopleura* MAXIMOWICZ ex DRUDE, l. c. p. 220 (1897); DE DALLA TORRE & HARMS, l. c. p. 374 (1903).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 4. *Eu-Angelica* DE

CANDOLLE ex DRUDE, l. c. p. 220 (1897); DE DALLA TORRE & HARMS, l. c. p. 374 (1903).

Peucedanum LINNÆUS subgen. *Eu-Peucedanum* DRUDE § 5. *Cervaria* DRUDE, l. c. p. 236 (1897) pro parte.

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 1. *Callisace* DRUDE ex DE DALLA TORRE & HARMS, l. c. p. 374 (1903).

Angelica LINNÆUS subgen. III. *Angelicastrum* DRUDE § 2. *Angelophyllum* DRUDE ex DE DALLA TORRE & HARMS, l. c. p. 374 (1903).

Clavis Specierum

- A. Folia 1-ternatisecta vel 1-2-pinnatisecta. Flores vulgo atro-purpurei raro albi.
- B. Planta gracilior. Folia crasse herbacea sæpe subcoriacea. Petala atro-purpurea vel raro alba apice paulum inflexa non emarginata Vallecule mericarpium 1-4-vittata.
3. *Angelica decursiva* FRANCHET & SAVATIER
- BB. Planta robustissima. Folia tenuiter herbacea. Petala semper atro-purpurea apice emarginato-inflexa. Vallecule mericarpium semper 1-vittata. 4. *Angelica gigas* NAKA.
- AA. Folia 2-4-pinnatisecta. Flores semper albi.
- B. Segmenta foliorum ultima tantum serrata vel duplicato-serrata vel raro incisa.
- C. Folia margine minute scabrida. Vallecule mericarpium semper 1-, commissura semper 2-vittata.
- D. Caulis robustissimus inferne ca. 7-8 cm. in diametro. Mericarpium usque 6.5 mm. longum et usque 5.5 mm. latum. 5. *Angelica dahurica* BENTHAM & HOOKER
- DD. Caulis gracilior inferne ca. 2 cm. in diametro. Mericarpium usque 9 mm. longum et usque 7 mm. latum.
6. *Angelica porphyrocaulis* NAKAI & KITAGAWA
- CC. Folia margine glaberrima.
- D. Folia subtus glaucissima.
- E. Commissura mericarpium utrinque semper 1-vittata,

valleculæ 1-vittatæ. 7. *Angelica jaluana* NAKAI

EE. Commissura mericarpii utrinque sæpius 2 rarius 1-vittata, valleculæ 1-vittatæ.

8. *Angelica anomala* LALLEMANT

DD. Folia subtus vix glaucescentia utrinque fere concoloria.

Valleculæ mericarpii 1-, commissura usque 4-vittatæ.

9. *Angelica kiusiana* MAXIMOWICZ

BB. Segmenta foliorum ultima valde polymorpha irregulariter grosse incisa—multipartita. Valleculæ mericarpii semper 1-, commissura utrinque 1- vel 2- vittatæ.

10. *Angelica polymorpha* MAXIMOWICZ

3) ***Angelica decursiva*** FRANCHET & SAVATIER, Enum. Pl. Jap. I. p. 187 (1875); FRANCHET, Pl. David. I. p. 142 (1884); DIELS in ENGLER, Bot. Jahrb. XXIX. Beibl. 82. p. 500 (1900); KOMAROV in Act. Hort. Petrop. XXV. p. 167 (1905) [Fl. Mansh. III. (1907)] pro parte; NAKAI in Journ. Coll. Sci. Imp. Univ. Tokyo XXVI. 1. p. 268 (1909); Tyôsen Syokubutu p. 407 f. 512 (1914); Mori, Enum. Pl. Cor. p. 267 (1922).

Porphyroscias decursiva MIQUEL in Ann. Mus. Bot. Lugd. Batav. III. p. 62 (1867); Prol. Fl. Jap. p. 250 (1866–1867).

Peucedanum decursivum MAXIMOWICZ in Mém. Biol. XII. p. 472 (1886); FORBES & HEMSLEY in Journ. Linn. Soc. XXIII. p. 335 (1888); PALIBIN in Act. Hort. Petrop. XVII. p. 98 (1899); YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 97 (1902); Enum. Pl. S. Manch. p. 101 (1912); MAKINO & NEMOTO, Fl. Jap. ed. 1. p. 460 (1925), ed. 2. p. 846 (1931).

Selinum melanotilingia BOISSIEU in Bull. Herb. Boiss. sér. 2. III. p. 956 (1903).

Peucedanum melanotilingia BOISSIEU, l. c. VIII. p. 642 (1908).

Peucedanum Porphyroscias MAKINO in Tokyo Bot. Mag. XVIII. p. 65 (1904); MATSUMURA, Ind. Pl. Jap. II. 2. p. 440 (1912).

Nom. Jap. *Nodake, Udana, Zenko, Koma-zeroi, No-zeroi*

Hab.:

Manshuria:

Prov. FĒNG-T'ĪEN [奉天省]: In sylvis circa Ling-shuei-szŭ [凌水寺] (M. KITAGAWA Sept. 2. 1930).

Prov. AN-TUNG [安東省]: In monte Fêng-huang-shan [鳳凰山] (M. NISHIMURA Sept. 12. 1910).

Korea :

Proq. Kô-GEN : Tyô-zen (T. NAKAI n. 6069. Aug. 29. 1916).

Prov. KEI-KI : Sui-gen (H. UEKI n. 390. Aug. 23. 1912); in monte Hokkan-zan (T. UCHIYAMA Oct. 14. 1900).

Prov. KEI-NAN : In monte Tyô-rei-zan (T. UCHIYAMA Oct. 2. 1902); Sui-an-po (T. UCHIYAMA Oct. 2. 1902).

Distr. Manshuria, Korea, Japonia & China.

f. **albiflorum** NAKAI in Journ. Coll. Sci. Imp. Univ. Tokyo XXVI. 1. p. 268 (1909).

Peucedanum decursivum MAXIMOWICZ f. *albiflorum* MAXIMOWICZ, l. c. p. 473 (1886); MAKINO & NEMOTO, l. c. ed. 1. p. 460 (1925), ed. 2. p. 846 (1931).

Peucedanum decursivum MAXIMOWICZ f. *albiflorum* YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 97 (1902) pro parte : in Tokyo Bot. Mag. XVII. p. 108 (1903) pro parte.

Peucedanum Porphyroscias MAKINO var. *albiflorum* MAKINO, l. c. p. 66 (1904).

Peucedanum Porphyroscias MAKINO f. *albiflorum* MAKINO ex MATSUMURA, l. c. y. 440 (1912).

Angelica decursiva FRANCHET & SAVATIER var. *albiflora* NAKAI, Tyôsen Syokubutu p. 407 (1914).

Nom. Jap. *Sirobana-nodake*

Hab. :

Manshuria :

Prov. FĒNG-T'ĪEN [奉天省]: In sylvis circa Ling-shuei-szŭ [凌水寺] (M. KITAGAWA Aug. 26. 1923; Sept. 2. 1930).

Korea :

Prov. KEI-NAN : Prope Kan-hatu-koku (T. UCHIYAMA Aug. 21. 1902).

Distr. Manshuria, Korea & Japonia.

The general habit and the look of foliage are much alike to those of *An-*

gelica cartilaginomarginata NAKAI. In Manchuria, the white-flowered form is more frequent than the typical one.

4) **Angelica gigas** NAKAI in Tokyo Bot. Mag. XXXI. p. 100 (1917); MORI, Enum. Pl. Cor. p. 267 (1922).

Angelica megaphylla (non DIELS) KOMAROV in Act. Hort. Petrop. XXV. p. 168 (1905); NAKAI in Journ. Coll. Sci. Imp. Univ. Tokyo XXVI. 1. p. 271 (1909).

Nom. Jap. *Oni-nodake*

Hab.:

Manshuria:

Prov. PIN-CHIANG [濱江省] (ex KOMAROV).

Prov. CHI-LIN [吉林省] (ex KOMAROV).

Prov. AN-TUNG [安東省] (ex KOMAROV).

Korea:

Prov. KAN-NAN: Tyô-dya-dô (T. NAKAI n. 3236. Jul. 24. 1914); San-sui —Kei-zan-tin (T. NAKAI n. 3665. Jul. 26. 1914; n. 3366. Sept. 26. 1914); Minami-hô-tai-zan—Kyo-tyô-rei (T. NAKAI n. 3302. Aug. 6. 1914); prope Kan-tai-ri (T. NAKAI n. 15616. Aug. 15. 1935).

Prov. Kô-GEN: In monte Kon-gô-zan (T. UCHIYAMA Aug. 18. 1902); ibidem (T. NAKAI n. 4033. Aug. 20. 1916; n. 6070. Aug. 20. 1916).

Distr. Manshuria orient. & Korea.

I have never collected this dark purple giant in Manchuria. As to the structure of fruit, I only follow the description given by Prof. KOMAROV, because the Korean specimens bear no matured fruits to examine. This is a tall robust plant with conspicuous, densely flowered, dark purple umbel, dominating on sunny grassy slopes along the running water of subalpine regions.

5) **Angelica dahurica** BENTHAM & HOOKER ex FRANCHET & SAVATIER, Enum. Pl. Jap. I. p. 187 (1875); MAXIMOWICZ in Mél. Biol. X. p. 55 (1877); YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 76 (1902); MATSUMURA, Ind. Pl. Jap. II. 2. p. 423 (1912); NAKAI, Tyôsen Syokubutu p. 408 (ut *Angelica davurica*) (1914); MORI, Enum. Pl. Cor. p. 267 (ut *Angelica*

davurica) (1922); MAKINO & NEMOTO, Fl. Jap. ed. 1. p. 442 (1925), ed. 2. p. 829 (1931).

Callisace dahurica FISCHER in HOFFMANN, Gen. Umbell. ed. 2. p. 170(1861); DE CANDOLLE, Prodr. IV. p. 184 (1830); LEDEBOUR, Fl. Ross. II. p. 316 (ut *Callisace davurica*)(1844-1846); FR. SCHMIDT in MAXIMOWICZ, Prim. Fl. Amur. p. 128 (1859): Reisen Amurl. p. 46 (1868); REGEL, Tent. Fl. Uss. p. 70 n. 219 (1861).

Thysselinum dahuricum SPRENGEL, Syst. Veget. I. p. 895 (ut *Thysselinum davuricum*) (1825).

Angelica dahurica RUPRECHT ex DRUDE in ENGLER & PRANTL, Nat. Pfl.-fam. III. p. 220 (1897); KOMAROV & KLOB.-ALISOVA, Key Pl. Far East. Reg. USSR II. p. 808 t. 249 (1932).

Angelica pubescens MAXIMOWICZ var. *glabra* YABE, l. c. p. 81 (1902).

Angelica dahurica MAXIMOWICZ ex KOMAROV in Act. Hort. Petrop. XXV. p. 161 (ut *Angelica daurica*) (1905) [Fl. Mansh. III. (1907)]; YABE, Enum. Pl. S. Manch. p. 99 (1912).

Angelica glabra MAKINO in Inuma, Sômoku Dusetu I. 5. p. 43 t. 36(1907): in Tokyo Bot. Mag. XXII. p. 174 (1908); MATSUMURA, l. c. p. 424 (1912); MAKINO & NEMOTO, l. c. ed. 1. p. 442 (1925), ed. 2. p. 829 (1931).

Nom. Jap. *Yoroi-gusi*, *Udo-modoki*, *Ô-sisi-udo*, *Ezo-senkyû*

Hab.:

Manshuria:

Prov. AN-TUNG [安東省]: Prope T'sao-hê-k'ou [草河口](M. KITAGAWA Aug. 19. 1926).

Korea:

Prov. KAN-NAN: San-yô—Kô-kô (T. NAKAI n. 3407. Jul. 22. 1914); prope Kan-tai-ri (T. NAKAI n. 15618. Aug. 15. 1935).

Prov. HEI-HOKU: Kô-kai (P. G. MILLS n. 6. Apr. 29. 1911; n. 72. Jul. 20. 1911; n. 706. Aug. 16. 1911).

Prov. Kô-GEN: In monte Kon-gô-zan (T. UCHIYAMA Aug. 15. 1902).

Prov. KEI-NAN: In monte Tyô-rei-zan (T. UCHIYAMA Sept. 12. 1902).

Prov. ZEN-NAN: In insula Sai-syû-tô sive Quelpært (T. NAKAI n. 841. Jun. 6. 1913; Mai. 20. 1913; Mai. 21. 1913).

Distr. Sibiria orient., Manshuria, Korea & Japonia.

Angelica dahurica BENTHAM & HOOKER is one of the most gigantic herbs found in Manchuria and Korea. Its strongly scented stem attains to 7-8 cm. in diameter in its lowermost part. It is generally greenish but often tinged with dark purple. The umbels are very large but the fruits are relatively small not exceeding 7 mm. in length and 6 mm. in width. All characteristics of this species are rather constant.

6) ***Angelica porphyrocaulis*** NAKAI & KITAGAWA in Rep. First Sci. Exped. Manch. sect. 4. I. p. 33 t. 10 (1934).

Nom. Jap. *Koba-no-yoroigusa*

Hab. :

Manshuria :

Prov. JÊ-HÊ [熱河省]: In monte Wu-ling-shan [霧靈山] (T. NAKAI, M. HONDA & M. KITAGAWA Sept. 2. 1933).

Distr. Manshuria austr. (Prov. JÊ-hê).

f. ***latisecta*** KITAGAWA f. nov.

Folia minus decomposita, segmentis ultimis majoribus minus profunde serratis usque ad 7.5 cm. longis et 2.4 cm. latis.

Nom. Jap. *Nanman-yoroigusa* (nov.)

Hab. :

Manshuria :

Prov. JÊ-HÊ [熱河省]: In monte prope Hsing-lung [興隆] (T. NAKAI, M. HONDA & KITAGAWA Aug. 31. 1933—Typus); prope Chang-shan-yü [長山峪] (T. NAKAI, M. HONDA & M. KITAGAWA Sept. 13. 1933).

Distr. Manshuria austr. (Prov. JÊ-hê).

This species is separable from the preceding species by the more slender usually intensely purple stem, and the larger fruits reaching 9 mm. long and 7 mm. broad. Forma *latisecta* KITAGAWA represents a form with largest and broadest leaf-segments among the series of polymorphic units.

The range of this plant in Manchuria is still confined to Jehol, but its probable distribution to North China is anticipated.

7) **Angelica jaluana** NAKAI in Tokyo Bot. Mag. XXVIII. p. 314 (1914); MORI, Enum. Pl. Cor. p. 267 (1922).

Angelica anomala (non LALLEMANT) KOMAROV in Act. Hort. Petrop. XXV. p. 158 (1905) pro parte.

Nom. Jap. *Arenare-nodake*

Hab. :

Korea :

Prov. Kan-nan : San-sui—Kei-zan-tin (T. NAKAI n. 3368-2 & -3. Jul. 25. 1914); Sya-sen-ri—San-sui (T. NAKAI n. 3368-1. Jul. 25. 1914); Flum. Jalu (V.L. KOMAROV Jul. 23. 1897).

Distr. Korea bor.

Though the materials of this species at hand are few and too young to judge its natural position, it is evident that this is most closely related to *Angelica anomala* LALLEMANT. From the latter species, however, it differs in its smaller leaf-segments and the mericarp provided with always two vittae in commissur. It is also distinguishable from *Angelica porphyrocaulis* NAKAI & KITAGAWA by its completely smooth margine of leaves, more glaucous undersurface of leaf-segments, and lower stem, etc.

8) **Angelica anomala** LALLEMANT, Ind. Sem. Hort. Petrop. IX. p. 57 (1844); FR. SCHMIDT in MAXIMOWICZ, Prim. Fl. Amur. p. 46 (1859) : Reisen Amurl. p. 46, p. 137 (1868); REGEL, Tent. Fl. Uss. p. 70 (1861); FRANCHET, Pl. David. I. p. 141 (1884); FORBES & HEMSLEY in Journ. Linn. Soc. XXIII. p. 333 (1888); KORSHINSKY in Act. Hort. Petrop. XII. p. 344 (1892); DRUDE in ENGLER & PRANTL, Nat. Pfl.-fam. III. 8. p. 220 (1897); YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 74 t. 3 f. 48 (1902) : Enum. Pl. S. Manch. p. 99 (1912); KOMAROV in Act Hort. Petrop. XXV. p. 158 (1905) [Fl. Mansh. III. (1907)] pro parte; NAKAI in Journ. Coll. Sci. Imp. Univ. Tokyo XXVI. 1. p. 270 (1909) : Tyôsen Syokubutu p. 407 f. 514 (1914); MATSUMURA, Ind. Pl. Jap. II. 2. p. 423 (1912); MORI, Enum. Pl. Cor. p. 266 (1922); MAKINO & NEMOTO, Fl. Jap. ed. 1. p. 441 (1925), ed. 2. p. 828 (1931); KOMAROV & KLOB.-ALISOVA, Key Pl. Far East. Reg. USSR II. p. 808 (1932).

Peucedanum angelicifolium TURCZANINOW in Bull. Soc. Nat. Mose. XI.

p. 93 (1838) nom. nud., XVII. p. 738 (1844).

Angelica montana SCHLEICHER β . *angustifolia* LEDEBOUR, Fl. Ross. II. p. 295 (1884-1846).

Angelica sylvestris LINNÆUS var. *angustifolia* TURCZANINOW, Fl. Baic-Dahur. I. p. 497 (1856).

Angelica sachalinensis MAXIMOWICZ ex FR. SCHMIDT in MAXIMOWICZ, Prim. Fl. Amur. p. 127 (1859) : DRUDE, l. c. p. 220 (1897).

Angelophyllum dauricum RUPRECHT, Rev. Umbell. Kamtsch. p. 9 (1859) fide FR. SCHMIDT.

Angelica refracta FR. SCHMIDT var. *glaucophylla* KOIDZUMI in Tokyo Bot. Mag. XXXI. p. 32 (1917) ; MAKINO & NEMOTO, l. c. ed. 1. p. 445 (1925), ed. 2. p. 832 (1931).

Angelica megaphylla (non DIELS) MORI, l. c. p. 268 (1922).

Angelica refracta (non FR. SCHMIDT) MORI, l. c. p. 268 (1922).

Nom. Jap. *Ezo-no-yoroigusa*, *Ezo-ô-yoroigusa*, *Uraziro-senkyû*, *Ôba-no-dake*

Hab. :

Manshuria :

Prov. HSING-AN OCCID. [興安西省] : In herbidis prope Irekte [伊勒克持] (M. KITAGAWA Jul. 30. 1930).

Prov. AN-TUNG [安東省] : In monte Fêng-huang-shan [鳳凰山] (K. YAMATUTA Aug. 5. 1928) ; ibidem (M. KITAGAWA Jul. 29. 1929 ; Aug. 5. 1931).

Korea :

Prov. KAN-NAN : Kei-zan-tin—Hu-ten-pô (T. NAKAI n. 3362. Aug. 3. 1914) ; in herbidis circa Kan-tai-ri (T. NAKAI n. 15617. Aug. 15. 1935).

Prov. KÔ-KAI : Ku-mi-ho (R. K. SMITH n. 109. Aug. 1932).

Prov. KÔ-GEN : In monte Kon-gô-san (T. NAKAI n. 5730. Aug. 4. 1916 ; n. 5731. Aug. 17. 1916 ; n. 5732. Jul. 31. 1916) ; ibidem (T. UCHIYAMA Aug. 16. 1902).

Distr. Sibiria, Manshuria, Korea, Japonia & China.

This polymorphic species is characterized by its tall, slender, purplish often bloomy stem, strongly glaucous undersurface of the leaves, large white-flowered umbel, comparatively thin mericarps, etc. The shape of leaf-seg-

ments is awfully variable. The commissur of mericarp has mostly four and more rarely two vittæ in the same umbel.

9) **Angelica kiusiana** MAXIMOWICZ in Mém. Biol. IX. p. 14 (1873); FORBES & HEMSLEY in Journ. Linn. Soc. XXIII. p. 334 (1888); PALIBIN in Act. Hort. Petrop. XVII. p. 99 (1899); YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 78 t. 3 f. 50 (1901); NAKAI in Journ. Coll. Sci. Imp. Univ. Tokyo XXVI. 1. p. 269 (1909); MATSUMURA, Ind. Pl. Jap. II. 2. p. 523 (1912); MORI, Enum. Pl. Cor. p. 267 (1922); MAKINO & NEMOTO, Fl. Jap. ed. 1. p. 443 (1925), ed. 2. p. 830 (1931).

Nom. Jap. *Hama-udo, Oni-udo, Kuzira-gusa*

Hab :

Korea :

Prov. ZEN-NAN: In insula Nisi-zima insularum Kyo-bun-tô vel 'Port Hamilton' (T. NAKAI n. 11913. Mai. 24. 1928).

Distr. Korea austr. & Japonia.

I examined only one young specimen from Korea collected and determined by Prof. NAKAI. It seems not to differ from the specimens from Japan.

The mericarps are large and thick with prominently ridged dorsal juga.

10) **Angelica polymorpha** MAXIMOWICZ in Mém. Biol. IX. p. 187 (1873), p. 257 (1873); YABE in Journ. Coll. Sci. Imp. Univ. Tokyo XVI. 4. p. 88(1902): Enum. Pl. S. Manch. p. 99 (1912); MATSUMURA, Ind. Pl. Jap. II. 2. p. 425 (1912); NAKAI, Tyôsen Syokubutu p. 410 (1914); MORI, Enum. Pl. Cor. p. 268 (1922); MAKINO & NEMOTO, Fl. Jap. ed. 1. p. 445 (1925), ed. 2. p. (1931).

Nom. Jap. *Sirane-senkyû*

Hab. :

Manshuria :

Prov. AN-TUNG [安東省]: In monte Fêng-huang-shan [鳳凰山] (K. YAMATUTA Sept. 13. 1930).

Prov. JÊ-HÊ [熱河省]: Prope Chang-shan-yü [長山峪] (T. NAKAI, M. HONDA & M. KITAGAWA Sept. 13. 1933).

Korea :

Prov. ZEN-NAN : In insula Sai-syû-tô sive Quelpært (S. ISIKAWA anno 1905); ibidem (TAQUET n. 898. Jun. 29. 1908; n. 899. Jul. 1908).

Distr. Manshuria austr., Korea & Japonia.

In the varieties of dissection and shape of leaf-segments as well as of the shape and size of mericarps, this species is surely *nomen est omen*. The specimens from Quelpært are poor while the Manchurian grow vigorously. The sheaths of petiols are always ventricose and venose. The mericarps are mostly quadrate-oblong, rarely broad elliptic in the specimens from Japan, but the feature of their transversal sections is always same.

11) **Angelica fallax** BOISSIEU in Bull. Soc. Bot. France LIX. p. 199 (1912); NAKAI, Tyôsen Syokubutu p. 410 f. 519 (1914); MORI, Enum. Pl. Cor. p. 267 (1922).

Nom. Jap. *Saisyû-oniudo*

Hab.

Korea :

Prov. ZEN-NAN : In insula Sai-syû-tô sive Quelpært (T. ISIDOYA n. 94. Aug. 14. 1912); ibidem (T. NAKAI n. 6364. Nov. 2. 1917; n. 6365. Nov. 3. 1917; n. 6366. Nov. 2. 1917; n. 6371. Nov. 3. 1917; Jun. 6. 1913).

Distr. Korea austr. (Insula Sai-syû-tô).

According to Prof. NAKAI, this species is readily distinguishable from *Angelica polymorpha* MAXIMOWICZ in the field by its lower stem and usually much numerous leaf-segments.

Species dubia

Angelica Wolffiana FEDDE ex WOLFF in FEDDE, Repert. XXVIII. p. 110 (1930)
= ? **Angelica polymorpha** Maximowicz.

Species exclusæ

Angelica takesimana NAKAI in Tokyo Bot. Mag. XXXII. p. 219 (1918).

Angelica tenuissima NAKAI in Tokyo Bot. Mag. XXXIII. p. 10 (1919).

Here, I wish to express my sincere gratitude to Prof. NAKAI of Tokyo Im-

perial University, for his kind guidance and suggestions during the course of this study.

やまぜり屬 (*Ostericum* HOFFMANN) 及ししうど屬 (*Angelica* LINNÆUS) 植物ハ共ニセリ科 (*Apiaceæ*) = 屬シ互ニ類似シタ點ノ多イ植物デア。古來漢藥トシテ重要視サレテキル當歸、白芷、獨活、羌活等ハ總テ此等兩屬植物ノ根部デアリ、ソノ治スル所ハ主トシテ風邪系ノ病デアルト謂フ。今、李時珍著「本草綱目」草部卷之十四ニ掲ゲラレテキル白芷ノ記事ヲ見ルニ次ノ文ガアル。

白芷

〔釋名〕白茝、芳香、澤芬、符籬、薑、莞、葉名蒿麻、葯根(修治)

〔氣味〕辛溫無毒

〔主治〕女人漏下赤白血閉陰腫寒熱頭風侵目淚出長肌膚潤澤顔色可作面脂(本經)

療風邪天渴吐嘔兩脅滿頭面目癢可作膏藥(別錄)

治目赤弩肉去眩癢補胎漏滑落破宿血補新血乳癰發背癰癰腸風痔瘻瘡疥癬止痛排膿(大明)

能蝕膿止血腹血刺痛女人瀝血腰痛血崩(甄權)

解利手陽明頭痛中風寒熱及肺徑風熱頭面皮膚風痺癢(元素)

治鼻淵鼻齩齒痛眉稜骨痛大腸風秘小便去血婦人血風眩暈醜胃吐食解砒毒蛇傷刀箭金瘡(時珍)

東亞ニ於テハ此等兩類ハ甚ダ豊富デア。ルガ其化學的成分ガ學術的ニ判明シテキルモノハ極メテ僅少デ、唯のだけ (*Angelica decursiva* FRANCHET & SAVATIER) = 關シテハ理學博士有馬純三氏ノ精細ナ研究ガアリ其根部 = Nodakenin $C_{29}H_{24}O_9$ ナル Glycoside ガ含マレテキル事ガ明ラカトナツテ居ルニ過ギナイ。其他ノ種類ノ成分 = 就テハ専門家ノ今後ノ研究 = 俟ツヨリ外ハナイガ、筆者ハ取敢ヘズ滿洲帝國所産ノ此等兩屬植物ノ種類ヲ研究シ其識別ヲ試ミタカラ茲ニソレヲ發表シタイト思フ。若シ此研究ガ植物成分研究家並ビニ實際野外ニ於テ此等ノ植物ヲ採集サレル方々ノ幾分ノ參考トナレバ筆者望外ノ幸デア。尙本研究ハ單ニ滿洲國內ノ種類ノミナラズ隣國朝鮮ニ産スルモノニモ及ンデキル。ソレハ今後朝鮮産ノ種類ガ滿洲國內ニモ發見サレル望ミガアルカラデア。

本研究ヲナスニ當リ東京帝國大學教授中井猛之進博士ヨリ種々御指導ヲ仰ギ論文草稿ノ御校閲ヲ賜ツタ。茲ニ記シテ深甚ナル感謝ノ意ヲ捧ゲル次第デア。

屬ノ検索表

- A. 果皮ハ薄ク膜質ヲナシ單 = 1 層ノ細胞ヨリ成リ、各細胞ハ外面ガ凸「レンズ」状 = 突出シテキル爲、廓大鏡下 = 見ル時ハ細胞ガ明瞭 = 看取サレル。果實成熟時 = 於テハ果皮ハ少クトモ分果ノ側端部 = 於テ種子ト分離シ屢々全體ガ之ト分離スル故、種子ハ屢々核状トナル。萼齒片ハ顯著デ宿存スル。葉ハ下面ガ淡色ヲ呈スルガ決シテ蒼白色ヲ帶ビズ、又決シテ小脈ガ著シク現ハレヌ。葉縁ハ硬質白色トナル事ガナイ。

やまぜり屬 (*Ostericum* HOFFMANN)

- AA. 果皮ハ厚ク多層ノ細胞ヨリ成リ 廓大鏡下 = 見テモ細胞ハ明瞭 = 看取サレル。果實成熟時 = 於テハ果皮ハ種子ト密着シ空隙ヲ殘サス故、種子ハ核状ヲナサヌ。萼齒片ハ不顯著デアアル。葉ハ下面ガ多少トモ蒼白色ヲ帶ビ小脈ガ甚ダ著シイ。葉縁ハ屢々硬質白色ヲ呈スル。

ししうど屬 (*Angelica* LINNÆUS)

I. やまぜり屬 (*Ostericum* HOFFMANN)

本屬ハ西曆 1814 年せり科植物ノ泰斗 HOFFMANN 氏 = 依ツテ設立サレタ屬デアアルガ最近 = 於テハ之ヲししうど屬 (*Angelica* LINNÆUS) = 合一スル學者ガ多ク獨立シタ屬トシテ認メテキル人ガ少イ。併シ此等兩屬ノ間 = ハ上記ノ如キ根本的ナ相違ガアルノデ筆者ハ本屬ヲ再認シ種名ノ改正ヲ行ツタ。

滿洲國、朝鮮、日本内地、極東地方ヲ通ジテ分布スル本屬植物ハ 7 種アル。

種ノ検索表

- A. 葉ノ最終裂片ハ狭長デ全縁デアアル。…… 1. ほそばのだけ(一名ほそばせんきう) (*Ostericum Maximowiczii* KITAGAWA) 東部西比利亞、滿洲、朝鮮及樺太
- AA. 葉ノ最終裂片ハ廣濶デ、鋸齒又ハ鈍齒又ハ缺刻ヲ有スル。
- B. 葉ノ最終裂片ハ粗大ナ缺刻狀鈍齒ヲ有スル、分果ノ背溝 = ハ各 1 個ノ合生面 = ハ 2-3-4 個ノ油管ヲ具ヘテキル。…… 2. にほひうど (*Ostericum grosseserratum* KITAGAWA) 南滿洲、朝鮮及北支那
- BB. 葉ノ最終裂片ハ單 = 鈍齒乃至鋸齒ヲ有スルノミデアアル。
- C. 花瓣ハ綠色ヲ帶ビル。…… 3. みどりのだけ (*Ostericum viridiflorum* KITAGAWA) 滿洲、黑龍州、沿海州及ダフリヤ地方
- CC. 花瓣ハ白色ヲ呈スル。
- D. 葉ノ下面ハ脈上粗糙乃至小長毛ヲ被ル。分果ノ背溝 = ハ各 1

- 個ノ、合生面ニハ2個ノ油管ガアル。 4. てうせんの
だけ(一名てうせんおにうど) (*Ostericum koreanum*
KITAGAWA) 滿洲、沿海州南部及北朝鮮
- DD. 葉ノ下面ハ全ク無毛デアアル。分果ノ背溝ニハ各1-3個ノ、合
生面ニハ4-6-8個ノ油管ガアル。…… 5. やまぜり (*Oste-*
ricum Miquelianum KITAGAWA) 北支那、南滿洲、朝鮮及日
本内地

II. ししうど屬 (*Angelica* LINNÆUS)

滿洲國及朝鮮ニ産スル本屬植物ハ約10種アルガ之ヲ3節 (section) ニ分ツ事
ガ出來ル。

節ノ檢索表

- A. 繖形花序ノ最外縁部ニ位置スル花瓣ハ他ノモノヨリ遙カニ大デアアル。分
果ノ側部ノ隆條ハ薄ク背面ノモノヨリ遙カニ濶イ翼ヲナシテキル。背面
ノ隆條ハ狭イ翼ヲナス。故ニ分果ハ少シク扁平デアアル。
1. たちうど節 (Sect. 1. *Czernaevia* KITAGAWA)
- AA. 花瓣ハスベテ殆ンド同形デアアル。分果ノ側部ノ隆條ハ薄ク背面ノモノヨ
リ少シク濶イ翼ヲナシテキル。背面ノ隆條ハ狭イ翼ヲナス。故ニ分果ハ
僅カニ扁平デアアル殆ンド半圓柱形ヲナシテキル。
2. ひめのだけ節 (Sect. 2. *Decursivæ* KITAGAWA)
- AAA. 花瓣ハスベテ殆ンド同形デアアル。分果ノ側部ノ隆條ハ厚イカ乃至ハ薄ク
背面ノモノヨリ遙カニ濶イ翼ヲナシテキル。背面ノ隆條ハ脈狀乃至少シ
ク翼狀ヲナスノミ。故ニ分果ハ甚シク扁平デアアル。
3. ししうど節 (Sect. 3. *Euangelica* DE CANDOLLE)
1. たちうど節 (Sect. 1. *Czernaevia* KITAGAWA)
本節ニ入ルモノハ1種アル。……1. たちうど(一名こばののだけ) *Angelica*
Czernaevia KITAGAWA) ダフリヤ地方、黒龍、沿海州、滿洲、朝鮮及北
支那
2. ひめのだけ節 (Sect. 2. *Decursivæ* KITAGAWA)
本節ニ入ル種ハ1種アル。即チ2. ひめのだけ (*Angelica cartilaginomargi-*
nata NAMAI) ガ之デアアル。基本種ハ日本内地ノ特産デアアルガ其變種並ビニ品種
ハ滿洲國及朝鮮ニ分布スル。其相互ノ區別法ハ次ノ通りデアアル。
- A. 羽片ノ最下ノ1對ノ上部ノモノト隔離シテ居ラス。
- B. 葉ハ小サク葉身ハ長サ 7.5 cm. ニ及ビ其最終裂片ハ幅 8 mm. ニ及

ブ。ひめのだけ (*Angelica cartilaginomarginata* var. *Makinoi* KITAGAWA) 日本内地

BB. 葉ハ大デ葉身ハ長サ 2l cm. = 及び其最終裂片ハ幅 3 cm. = 及ブ。

C. 下葉ノ裂片ハ狹長デ長橢圓形—線形ヲナシ先端ハ通常鋭頭、稀 = 鈍頭ヲナシ幅 2.5 cm. = 及ブ。…… かうらいひめのだけ (*Angelica cartilaginomarginata* var. *Matsumurae* KITAGAWA) 満洲、朝鮮及日本内地

CC. 下葉ノ裂片ハ廣濶デ廣卵形—狹橢圓形ヲナシ先端ハ鈍頭—甚シク鈍頭ヲナシ幅 3 cm. = 及ブ。…… ひろはひめのだけ (新稱) *Angelica cartilaginomarginata* var. *Matsumurae* f. *latipinna* KITAGAWA) 朝鮮

AA. 羽片ノ最下ノ1對ハ上部ノモノト長ク隔離シテキル。…… おほしらはのだけ (*Angelica cartilaginomarginata* var. *distans* KITAGAWA) 朝鮮

3. ししうど節 (Sect. 3. *Euangelica* DE CANDOLLE)

本節 = ハ満鮮産ノモノガ約 10 種アル。

種ノ検索表

A. 葉ハ 3 全裂スルカ 1-2 回羽狀全裂スル。花ハ通常黒紫色ヲ呈シ稀 = 白色ヲ呈スル。

B. 植物ハ細長。葉ハ厚イ草質、屢々 稜ニ稍革質ヲナス。花瓣ハ黒紫色、稀 = 白色ヲ呈シ先端ハ少シク内曲シ凹頭ヲナス。分果ノ背溝ハ各 1-4 個ノ油管ヲ有スル。…… 3. のだけ (*Angelica decursiva* FRANCHET & SAVATIER) 支那、満洲、朝鮮及日本内地

BB. 植物ハ極メテ壯大。葉ハ薄草質ヲナス。花瓣ハ常 = 黒紫色ヲ呈シ先端ハ凹頭狀 = 内曲スル。分果ノ背溝ハ各 1 個ノ油管ヲ有スル。…… 4. おにのだけ (*Angelica gigas* NAKAI) 満洲東部及朝鮮

AA. 葉ハ 2-4 回羽狀全裂スル。花ハ常 = 白色ヲ呈スル。

B. 葉ノ最終裂片ハ單 = 鋸齒、重鋸齒又ハ缺刻ヲ有スルノミ、

C. 葉ノ縁邊ハ細カク糙澁スル。分果ノ背溝ハ各常 = 1 個ノ、合生面ハ常 = 2 個ノ油管ヲ持ツ。

D. 莖ハ極メテ壯大、下部ノ直徑約 7-8 cm. = 及ブ。分果ハ長サ 6.5 mm., 幅 5.5 mm. = 及ブ。…… 5. よろひぐさ (*Angelica dahurica* BENTHAM & HOOKER) 東部西比利亞、満洲、朝鮮及日本内地

- DD. 莖ハ細長、下部ノ直徑約 2 cm. アル。分果ハ長サ 9 mm., 幅 = 7 mm. = 及ブ。……6. こばのよろひぐさ (*Angelica porphyrocaulis* NAKAI & KITAGAWA) 南滿洲 (熱河省)。
- CC. 葉ノ縁邊ハ全ク無毛デアル。
- D. 葉裏ハ甚シク蒼白色ヲ呈スル。
- E. 分果ノ合生面ハ兩側 = 常 = 1 個ノ、背溝ハ各 1 個ノ油管ヲ具フ。……7. あれなれのだけ (*Angelica jaluana* NAKAI) 北朝鮮
- EE. 分果ノ合生面ハ兩側 = 多クハ 2 個稀 = 1 個ノ、背溝ハ 1 個ノ油管ヲ具フ。……8. えぞのよろひぐさ (一名 えぞおほよろひぐさ) (*Angelica anomala* LALLEMANT) 西比利亞、滿洲、朝鮮、日本内地及支那
- DD. 葉ノ下面ハ僅カ = 蒼白色ヲ帶ビ兩面殆ンド同色デアル。分界ノ背溝ハ各 1 個ノ、合生面ハ多クテ 4 個ノ油管ヲ有スル。
9. はまうど (*Angelica kiusiana* MAXIMOWICZ) 日本内地及朝鮮
- BB. 葉ノ最終裂片ハ極メテ多形デ不規則 = 粗大ナ缺刻ヲ有スルカ乃至ハ多數 = 深裂スル。分果ノ背溝ハ各常 = 1 個ノ、合生面ハ兩側 = 1-2 個ノ油管ヲ有スル。……10. しらねせんきう (*Angelica polymorpha* MAXIMOWICZ) 南滿洲、朝鮮及日本内地
- 中井博士ノ御説 = 依レバ、濟州島産ノ 11. さいしうおにうど (*Angelica fallax* BOISSIEU) ハしらねせんきうトハ其莖ノ低ク多岐ナ點、葉裂片ノ小形多數・點 = ヨツテ容易 = 種トシテ區別シ得ラレルモノトノ事デアル。東京帝國大學ノ腊葉室 = モ其標本ガ收藏サレテ居ル。
- FEDDE 氏 = 依ツテ命名セラレタ朝鮮産ノ *Angelica Wolffiana* FEDDE ト稱スル種ハ或ハしらねせんきうト同一デハ無イカト考ヘテ居ル。
- 今迄ししうど屬 = 隸屬シテキタけしまししうど (*Angelica takesimana* NAKAI) 及にほひうゐきやう (*Angelica tenuissima* NAKAI) ハ今回同屬ヨリ除イタ。共 = たうき屬 (*Ligusticum* LINNÆUS) 群ノ植物ラシク思ハレル。
- 上記諸種ノ詳細ナ産地 = 就テハ歐文欄ヲ参照サレタイ。