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

By

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108. *Compositae*.¹⁾

Achillea L.

563^{(1)*} ***Achillea pulchra*** KOIDZUMI in Bot. Mag. Tokyo XXXII, p. 59 (1918).

Syn. *Achillea speciosa* var. *pulchra* NAKAI, Veg. Apoi p. 14 & 70 (1930).

Nom. Jap. *Akabana-yezonokogirisô* (Koidz. 1918).

Hab. in grassy places in Mt. Apoi, etc. Fl. mid Jul.—Aug.

f. **alba** HARA, f. nov.

Ligula floris alba.

Typus. Yezo: prov. Kushiro: Kiritap (H. HARA—Aug. 8, 1936).

Hab. along Horoman R., between Shoya and Saruru.

Endemic species in Yezo.

*var. **angustifolia** HARA, var. nov.

Syn. *Achillea Ptarmica* (non L.) NAKAI, Veg. Apoi p. 14 & 70 (1930).

Caulis 15–40 cm. altus gracilescens. Folia anguste linearia 2–6 cm. longa 2–4 mm. lata margine serrata vel inciso-serrata. Caput minus. Ligula floris alba.

Nom. Jap. *Horoman-nokogirisô* (nov.)

Hab. at the mouth of Horomon R. (H. HARA—Sep. 6, 1933—typus).

Fl. Aug.—Sep.

f. **rosea HARA, f. nov.

Ligula floris rosea. Cetera ut in var. *angustifolia*.

Hab. at the mouth of Horoman R. (rare).

This variety is known only in the above locality.

Adenocaulon HOOKER.

564^{(2)*} ***Adenocaulon adhaerescens*** MAXIMOWICZ, Prim. Fl. Amur. p. 152 (1859).—KOMAROV, Fl. Mansh. III, p. 620 (1907).—NAKAI, Veg. Apoi p. 70 (1930).

1) Some critical species of *Compositae* were collaborated with Mr. SIRO KITAMURA of Kyoto Imperial University.

Syn. *Adenocaulon bicolor* HOOKER var. *adhaerescens* MAKINO in Bot. Mag. Tokyo XIII, p. [240] (1899); XXIII, p. 17. (1909).—MATSUMURA, Ind. Pl. Jap. II-2, p. 620 (1912).

Nom Jap. *Nobuki*.

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

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

Anaphalis DC.

565⁽³⁾* **Anaphalis alpicola** MAKINO in Bot. Mag. Tokyo XVII, p. 151 (1903).—MATSUMURA, Ind. Pl. Jap. II-2, p. 621 (1912).—TATEW., Veg. Apoi p. 113 (1928).

*f. **robusta** HARA, f. nov.

Syn. *Anaphalis alpicola* MAKINO, l.c. (1903) quoad pl. ex Saman.

Anaphalis apoiensis NAKAI, Veg. Apoi p. 30 & 70 (1930) nom. seminud.

Planta robustior quam typo. Caulis usque ad 40 cm. altus. Folia basilaria ad 2 cm. lata. Flores semper albi.

Nom. Jap. *Apoi-hakakogusa* (NAKAI 1930).

Hab. in the middle & upper part of Mt. Apoi and Mt. Horoman. Fl. Jul.—Aug.

Dist. sp. Honshu and Yezo.

566⁽⁴⁾* **Anaphalis margaritacea** BENTHAM et HOOKER fil., Gen. Pl. II, p. 303 (1873).

Syn. *Gnaphalium margaritaceum* LINNAEUS, Sp. Pl. ed. 1, II, p. 850 (1753). subsp. **angustior** (MIQUEL) KITAMURA et HARA, comb. nov.

*var. **angustior** NAKAI in Bot. Mag. Tokyo XL, p. 148 (1926).

Syn. *Antennaria cinnamomea* DC. var. ? β . *angustior* MIQUEL in Ann. Mus. Bot. Lugd.-Bat. II, p. 178 (1866).

Gnaphalium margaritaceum β . *intermedium* s. *kamtschaticum* HERDER in Bull. Soc. Imp. Nat. Moscou XL-1, p. 415 (1867).

?*Anaphalis margaritacea* var. *occidentalis* GREENE, Fl. Franciscana IV, p. 399 (1897).—FERNALD in Rhodora XIII, p. 27 (1911).—HULTÉN, Fl. Kamt. IV, p. 164 (1930).

Anaphalis margaritacea (non BENTH. et HOOKER f.) MATSUMURA, Ind. Pl. Jap. II-2, p. 621 (1912).—KUDO, Fl. Param. p. 165 (1922) (cum f. *latifolia* KUDO).—TATEW., Veg. Apoi p. 113 (1928).—KOMAROV, Fl. Penin. Kamt. III, p. 132 (1930).—TATEWAKI et KOBAYASHI, Contr. Fl. Aleutian Is. p. 84 (1934).

Anaphalis margaritacea var. *cinnamomea* NAKAI, Veg. Apoi p. 23 & 70 (1930) excl. syn.

Nom. Jap. *Yama-hahako*.

Hab. in Mt. Apoi, Shoya, Mt. Rakko, etc. Fl. Aug.—Sep.

Dist. var. Honshu, Yezo, Kuriles, Saghalien, Ussuri?, Ochotsk, Kamtchatka and N. America.

Leaves of the specimens in this district are 8–18 mm. wide.

*f. **ramosa** (NAKAI) HARA, comb. nov.

Syn. *Anaphalis margaritacea* var. *ramosa* NAKAI, Veg. Apoi p. 23 & 70 (1930).

Caulis supra medium dense ramosus.

Nom. Jap. *Edauchi-yamahahako* (NAKAI 1930).

Hab. at the foot of Mt. Apoi.

var. **intercedens** HARA, var. nov.

Syn. *Anaphalis yedoensis* (non MAXIM.) TAKEDA in Bot. Mag. Tokyo XXIV, p. 315 (1910).

Caulis simplex erectus 50–80 cm. altus albo-lanatus saepe ab axibus foliorum superiorum ramos tenuis emittens. Folia lineari-lanceolata 5–11 cm. longa 2–7 mm. lata supra incano-lanata subtus dense albo-lanata. Caput ut in var. *angustiore*.

Nom. Jap. *Yezo-kawarahahako* (nov.).

Hab. on gravelly river-beds of Saruru R. (H. HARA—Aug. 30, 1933—type). Fl. late Aug.—Sep.

Dist. var. Honshu and Yezo.

This is an intermediate form between *A. margaritacea* subsp. *angustior* and subsp. *yedoensis* and is not rare in gravelly places of Yezo.

Arnica L.

567⁽⁵⁾ ***Arnica unalaschcensis*** LESSING in Linnaea VI, p. 238 (1831).—MATSUMURA, Ind. Pl. Jap. II-2, p. 622 (1912).—KUDO, Fl. Param. p. 170 (1922).—HULTÉN, Fl. Kamt. IV, p. 193 (1930).—TATEWAKI et KOBAYASHI, Contr. Fl. Aleut. Is. p. 85 (1934).

Nom. Jap. *Yezo-usagigiku* (nov.).

Hab. on Mt. Rakko and Tokachi. Fl. Jul.

Dist. sp. Mid. & N. Honshu, Yezo, Kuriles, S. Kamtchatka and Aleutian.

Specimens of the district as well as those of Unalaska have nearly glabrous corolla-tubes. The plant of Honshu,¹⁾ however, has generally

1) *Arnica unalaschcensis* LESSING.

var. **Tschonoskyi** (ILJIN) KITAMURA et HARA, comb. nov.

Syn. *Arnica Tschonoskyi* ILJIN in Trav. Mus. Bot. Acad. Sci. URSS. XIX, p. 119 (1926).

Nom. Jap. *Usagi-giku*.

Hab. Honshu media et septentrionalis.

hairy corollat-tubes, and has often less hairy stems, leaves and involucre bracts, although intermediate forms are found.

Artemisia L.

568⁽⁶⁾ ***Artemisia arctica*** LESSING in *Linnaea* VI, p. 213 (1831).—HULTÉN, *Fl. Kamt.* IV, p. 176 (1930).—KOMAROV, *Pl. Penin. Kamt.* III, p. 150 (1930).—TATEWAKI et KOBAYASHI, *Contr. Fl. Aleut. Is.* p. 85 (1934).—KITAMURA in *Acta Phytotax. et Geobot.* V, p. 88 & 96 (1936).

Syn. *Artemisia norvegica* (non FRIES) MATSUMURA, *Ind. Pl. Jap.* II-2, p. 624 (1912).—PAMPANINI in *Nuovo Giorn. Bot. Ital. n.s.* XXXIV, p. 684 (1927).

Nom. Jap. *Samani-yomogi*.

Hab. on rocks of C. Enrum and Mt. Toyoni (ex Tsushima).

Dist. N. Honshu, Yezo, Kuriles, Saghalien, Kamtchatka, Siberia and N. America.

569⁽⁷⁾ ***Artemisia gigantea*** KITAMURA in *Acta Phytotax. et Geobot.* II, p. 172 (1933); III, p. 91 & 99 (1936).

Syn. *Artemisia vulgaris* L. var. *vulgatissima* (non BESSER) auct. Jap.

Artemisia vulgaris var. *yezoana* KUDO, *Medic. Pl. Hokkaido* no. 97 (1922) cum fig.

Artemisia montana (non SCHLECHTENDAL 1846) PAMPANINI in *Nuovo Giorn. Bot. Ital. n.s.* XXXVI, p. 461 (1930).

*f. **montana** (NAKAI) HARA, comb. nov.

Syn. *Artemisia vulgaris* var. *indica* f. *montana* NAKAI in *Bot. Mag. Tokyo* XXVI, p. 104 (1912).

Artemisia vulgaris var. *kamtschatica* (non LEDEBOUR) auct. Jap.—TATEW., *Veg. Apoi* p. 114 (1928).

Artemisia coarctata (non FORBES) NAKAI, *Veg. Apoi* p. 70 (1930).

Nom. Jap. *Yezo-yomogi*.

Hab. at the foot of Mt. Apoi.

*f. **electa** (PAMPANINI) HARA, comb. nov.

Syn. *Artemisia vulgaris* var. *latiloba* (non LEDEBOUR) NAKAI, l.c. p. 103 (1912).

Artemisia montana var. *a. latiloba* PAMPANINI, l.c. (1930).

Artemisia nipponica PAMPANINI var. *electa* PAMPANINI, l.c. p. 464 (1930).

Artemisia coarctata var. *latiloba* NAKAI, *Veg. Apoi* p. 71 (1930) excl. syn. LEDEB.

Nom. Jap. *Ô-yomogi*, *Yama-yomogi*.

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

****f. shikotanensis** (KITAMURA) HARA, comb. nov.

Syn. *Artemisia shikotanensis* KITAMURA in Acta Phytotax. et Geobot. III, p. 128 (1934) (ut *shikotensis*).

Nom. Jap. *Shikotan-yomogi* (KITAMURA 1934).

Hab. Porosanushibetsu.

Dist. sp. Honshu, Yezo, Kuriles and Saghalien.

570⁽⁸⁾* **Artemisia japonica** THUNBERG, Fl. Jap. p. 310 (1784).—BESSER in Bull. Soc. Imp. Nat. Moscou VIII, p. 48 (1835).—TAKEDA in Bot. Mag. Tokyo XXV, p. 22 (1911).—MATSUMURA, Ind. Pl. Jap. II-2, p. 624 (1912).—NAKAI in Bot. Mag. Tokyo XXVI, p. 99 (1912) (f. *typica* NAKAI).—PAMPANINI in Nuovo Giorn. Bot. Ital. n. s. XXXIV, p. 660 (1927).—TATEW., Veg. Apoi p. 114 (1928).—NAKAI, Veg. Apoi p. 71 (1930).—MASAMUNE, Fl. & Geobot. Stud. Yakusima p. 449 (1934).

Nom. Jap. *Otoko-yomogi*.

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

****f. resedifolia** TAKEDA, l.c. p. 22 (1911).—NAKAI, l.c. (1912).

Syn. *Artemisia japonica* var. *japonica* MAXIM. f. *typica* NAKAI subf. *resedifolia* PAMPANINI, l.c. p. 664 (1927).

Nom. Jap. *Hosoba-no-otokoyomogi* (MATSUMURA 1890).

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

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

571⁽⁹⁾* **Artemisia Keiskeana** MIQUEL in Ann. Mus. Bot. Lugd.-Bat. II, p. 176 (1866).—MATSUMURA, Ind. Pl. Jap. II-2, p. 624 (1912).—NAKAI in Bot. Mag. Tokyo XXVI, p. 101 (1912) (f. *hirtella* NAKAI).—PAMPANINI in Nuovo Giorn. Bot. Ital. n. s. XXXIV, p. 670 (1927); XXVI, p. 385 (1929).—TATEW., Veg. Apoi p. 114 (1928).—NAKAI, Veg. Apoi p. 71 (1930).—KITAMURA in Acta Phytotax. et Geobot. V, p. 89 (1936).

Nom. Jap. *Inu-yomogi*.

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

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

572⁽¹⁰⁾ **Artemisia Koidzumii** NAKAI in Bot. Mag. Tokyo XXV, p. 56 (1911); XXVI, p. 100 (1912).—PAMPANINI in Nuovo Giorn. Bot. Ital. n. s. XXXVI, p. 482 (1930) (var. *typica* PAMP.)—KITAMURA in Acta Phytotax. et Geobot. V, p. 90 & 98 (1936).

Syn. *Artemisia vulgaris* var. *latiloba* (non LEDEBOUR) KOIDZUMI, Pl. Sachal. Nakahara. p. 120 (1910).—KUDO, Rep. Veg. N. Saghal. p. 234

(1924).

Artemisia vulgaris var. *latifolia* (non BESSER) TAKEDA in Bot. Mag. Tokyo XXV, p. 23 (1911).

Artemisia gilvescens (non MIQUEL) PAMPANINI, l.c. p. 465 (1930) (cum var. *arguta* PAMP.).

Artemisia ursorum HULTÉN, Fl. Kamt. IV, p. 188, fig. 6; pl. 6, fig. g (1930).

Nom. Jap. *Hiroha-urajiro-yomogi* (MIYABE et MIYAKE 1915).

Hab. in grassy places at the coasts of C. Erimo. Fl. Sep.

Dist. Yezo, Kuriles, Saghalien, Korea, Ochotsk and Kamchatka.

573⁽¹¹⁾* ***Artemisia littoricola*** KITAMURA in Acta Phytotax. et Geobot. V, p. 87 & 94 (1936).

Syn. *Artemisia desertorum* (non SPRENGEL) TAKEDA in Bot. Mag. Tokyo XXV, p. 21 (1911).—NAKAI in Bot. Mag. Tokyo XXVI, p. 99 (1912).—KUDO, Rep. Veg. N. Saghal. p. 233 (1924).—NAKAI, Veg. Apoi p. 71 (1930).

Artemisia japonica var. *macrocephala* PAMP. f. *sachalinensis* PAMPANINI in Nuovo Giorn. Bot. Ital. n.s. XXXIV, p. 668 (1927).

Nom. Jap. *Hama-otokoyomogi* (MIYABE et MIYAKE 1915).

Hab. on coasts of Mt. Apoi, C. Erimo, Shoya, etc. Fl. Sep.

Dist. N. Honshu, Yezo, S. Kuriles, Saghalien and Korea?

Leaves are very polymorphous as in *A. japonica* THUNBERG. Some has cuneate-obovate cauline leaves which are only serrate in the upper part (f. *cuneata*), and some pinnately parted leaves with linear, about 2 mm wide and sometimes laciniate lobes (f. *pinnata*).

574⁽¹²⁾* ***Artemisia sacrorum*** LEDEBOUR in Mém. Acad. Sci. St.-Petersb. V, p. 571 (1805); Fl. Altaica IV, p. 72 (1833).

*var. ***laciniiformis*** NAKAI in Bot. Mag. Tokyo XXVI, p. 101 & 103 (1912).

Syn. *Artemisia sacrorum* (non LEDEBOUR) MATSUMURA, Ind. Pl. Jap. II-2, p. 625 (1912) pro parte.

Artemisia sacrorum var. *major* PAMP. f. *japonica* subf. *laciniiformis* PAMPANINI in Nuovo Giorn. Bot. Ital. n.s. XXXIV, p. 696 (1927).

*f. ***platyphylla*** PAMPANINI, l.c. p. 695 (1927); XXXVI, p. 387 (1929) (ut var. *major* f. *platyphylla*).

Syn. *Artemisia sacrorum* (non LEDEBOUR) MATSUMURA, l.c. (1912) pro parte *Artemisia sacrorum* var. *latiloba* (non LEDEBOUR) TAKEDA in Bot. Mag. Tokyo XXV, p. 22 (1911).—NAKAI, l.c. p. 101 & 102 (1912).—KUDO, Rep. Veg. N. Saghal. p. 235 (1924).

Artemisia sacrorum var. *intermedia* f. *viridis* (non LEDEBOUR) NAKAI, l.c. (1912).—TATEW., Veg. Apoi p. 114 (1928).

Artemisia Messerschmidtiana a. *viridis* (non BESSER) NAKAI, Fl. Sylv. Korea. XIV, p. 129, t. 27 (1923); Veg. Apoi p. 71 (1930).

Artemisia sacrorum var. *major* PAMPANINI, l.c. p. 694 (1927); l.c. p. 387 (1929).—KITAMURA in Acta Phytotax. et Geobot. V, p. 87 (1936).

Nom. Jap. *Iwa-yomogi*.

Hab. on grassy coastal slopes at the foot of Mt. Apoi, Shoya, etc. Fl. mid.—late Sep.

Dist. var. Yezo, S. Kuriles, Saghalien, Korea and Manchuria.

575⁽¹³⁾* **Artemisia Stelleriana** BESSER in Nouv. Mém. Soc. Nat. Moscou III, p. 79, pl. 5 (1834).—FRANCHET in Bull. Soc. Philom. Paris Ser. 7, XII, p. 87 (1888).—MATSUMURA, Ind. Pl. Jap. II-2, p. 625 (1912).—NAKAI in Bot. Mag. Tokyo XXVI, p. 100 & 102 (1912) incl. var. *sachalinensis*.—KUDO, Fl. Param. p. 169 (1922).—PAMPANINI in Nuovo Giorn. Bot. Ital. n.s. XXXIV, p. 704 (1927).—NAKAI, Veg. Apoi p. 71 (1930).—HULTÉN, Fl. Kamt. IV, p. 185 (1930).—KOMAROV, Fl. Penin. Kamt. III, p. 154 (1930).—KOMAROV et KLOB. ALISOVA, Key Pl. Far East. Reg. USSR. II, p. 1036, t. 311, f. 1, 6 & 7 (1932).—KITAMURA in Acta Phytotax. et Geobot. V, p. 88 (1936).

Nom. Jap. *Shiro-yomogi*.

Hab. on coasts at the foot of Mt. Apoi, C. Erimo, Shoya, etc. Fl. mid. Jul.—Aug.

Dist. N. Honshu, Yezo, Kuriles, Saghalien, N. Korea, Ussuri and Kamchatka. Naturalized in N. Europe and N. America.

Aster L.

576⁽¹⁴⁾** **Aster ageratoides** TURCZANINOW in Bull. Soc. Imp. Nat. Moscou VII, p. 154 (1837).—KITAMURA in Journ. Jap. Bot. XII, p. 642 (1936).

subsp. **ovatus KITAMURA, l.c. p. 647 (1936).

Syn. *Aster trinervius* var. *ovata* FRANCHET et SAVATIER, Enum. Pl. Jap. I, p. 222 (1875).

var. **yezoensis KITAMURA et HARA, var. nov.

Involuceri squamae apice acutae vel acutiusculae purpureae. Flores purpurei. Cetera ut in subsp. *ovato*.

Nom. Jap. *Yezo-nokongiku* (nov.).

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

Typus. prov. Ishikari: Jôzankei (H. HARA—Aug. 20, 1931).

Dist. var. Honshu and Yezo.

577⁽¹⁵⁾* **Aster dubius** ONNO in Biblioth. Bot. Ht. 106, p. 21 (1932).—KITAMURA in Journ. Jap. Bot. XII, p. 727 (1936).

Syn. *Inula dubia* THUNBERG, Fl. Jap. p. 318 (1784).

Erigeron Thunbergii A. GRAY, Bot. Jap. p. 395 (1859).

Erigeron dubius (non SPRENGEL 1826) MAKINO in Bot. Mag. Tokyo XVIII, p. 18 (1904).

subsp. **glabratus** (A. GRAY) KITAMURA et HARA, comb. nov.

Syn. *Aster consanguineus* LEDEBOUR, Fl. Ross. II, p. 473 (1845).—HULTÉN, Fl. Kamt. IV, p. 156 (1930).—KOMAROV, Fl. Penin. Kamt. III, p. 123 (1930).—KITAMURA, l.c. p. 727 (1936).

Erigeron Thunbergii var. *glabratum* A. GRAY, l.c. (1859).

Erigeron dubius var. *alpicola* MAKINO in MIYOSHI et MAKINO, Alp. Pl. Jap. I, no. 117 (1906).—MATSUMURA, Ind. Pl. Jap. II-2, p. 646 (1912).

Erigeron alpicolus MAKINO in Bot. Mag. Tokyo XXVIII, p. 339 (1914).

Erigeron Thunbergii var. *alpicolum* KUDO, Fl. Param. p. 164 (1922).

Nom. Jap. *Miyama-adzumagiku*.

Hab. in grassy places near Shoya, C. Erimo, Mt. Ruchishi, Mt. Toyoni, Mt. Rakko, etc. Fl. Jun.—Jul.

Dist. subsp. Honshu, Yezo, Kuriles, Saghalien, Korea, Ochotsk, Kamchatka and E. Siberia.

The subspecies differs from *A. dubius* ONNO by having smaller tube-flowers, and shorter (ca. 3 mm long), whitish pappi. The specimen from C. Erimo has whitish pappi attaining 5 mm long, and is an intermediate form between the type and the subspecies.

*var. **angustifolius** (TATEWAKI) HARA, comb. nov.

Syn. *Erigeron glabratus* var. *angustifolius* TATEWAKI, Veg. Apoi p. 113 & 131 (1928).

Erigeron glabratus (non HOPPE et HORNSCHUCH) NAKAI, Veg. Apoi p. 72 (1930).

Erigeron Tsuneoi TATEWAKI in Hokkaido Ringyô-kaihô 33, p. 594 (1935) cum fig.

Aster Tsuneoi MIYABE et TATEWAKI in Trans. Sapporo Nat. Hist. Soc. XIV, p. 265, f. 15 (1936).

Aster consanguineus var. *angustifolius* HARA, mss.

Nom. Jap. *Apoi-adzumagiku* (TATEWAKI 1928).

Hab. in the upper & middle part of Mt. Apoi and Mt. Horoman. Fl. late May—Jul.

Flowers are generally white, but sometimes, especially in the later season, purple or light blue. A glabrescent form with only sparsely short-pilose stems and involueral bracts also occurs (f. *glabra* HARA).

(To be continued).