



HOKKAIDO UNIVERSITY

Title	伊藤秀五郎、小森五作兩氏採集アライト島植物に就きて（第五、第六圖版）
Author(s)	館脇， 操
Citation	札幌博物学会会報， 9(2)， 151-192
Issue Date	1927-10-15
Doc URL	https://hdl.handle.net/2115/63133
Type	journal article
File Information	Vol.9No.2_001.pdf



ON THE PLANTS
COLLECTED IN THE ISLAND OF ALAID
BY HIDEGORÔ ITÔ AND GOSAKU KOMORI.

BY

MISAO TATEWAKI.

(With Plate V & VI.)

伊藤秀五郎、小森五作兩氏採集
アライト島植物に就きて

館 脇 操

(第五、第六圖版)

INTRODUCTION.

Until recently the Herbarium of the Faculty of Agriculture, Hokkaido Imperial University contained no plant from the Island of Alaid, on account of the difficulty of communication. Messers. HIDEGORÔ ITÔ and GOSAKU KOMORI, students of the Faculty of Agriculture, presented to the University their specimens of plants collected in that island during the summer of 1926. It was by the good offices and kind encouragement of Messers. NAOYA HASHIMOTO and TADAICHI KODAMA that they were enabled to make a botanical collection in that unhabited island and to take the opportunity of ascending Mt. Alaid. The writer wishes to express his sincere thanks to Prof. K. MIYABE for his kind direction and to Messers. HIDEGORÔ ITÔ and GOSAKU KOMORI for their kind endeavour and the enthusiasm with which they have collected the specimens under great peril and difficulty.

Alaid is the northernmost and loftiest island in the Kuriles, lying about 15 miles north-west from the Island of Paramushir. It extends from 50°48' to 50°55' North Latitude, and from 155°27' to 155°40' Longitude East of

Greenwich. It is oblong-orbicular in shape about 16 km. in length and 14 km. in width.

Alaid is an extinct volcanic island in which the main peak, (*Higashidake*) attaining a height of 2339 m., occupies the central situation. The rivers are short and run radially from the sides of Mt. Alaid (*Araitō-fuji*). The coast is rocky and unapproachable and there are no harbours affording a complete shelter. The island the boldest and steepest on the southern and western sides.

Sandy beaches are feebly developed, and consequently the vegetation is comparatively poor. The following species were found forming the sand-beach association of the island:—

Elymus mollis, *Ammodenia major*, *Lathyrus maritima*, *Mertensia maritima*, subsp. *asiatica*, *Lactuca repens*, *Senecio Pseudo-Arnica*, *Rosa rugosa*, etc.

Rosa rugosa occurs as abundantly as in the other islands of the Kuriles. A similar association extends to the adjoining stony and rocky shores. On rocky cliffs, the following species are found:—

Sagina procumbens, *Cochlearia oblongifolia*, *Draba borealis*, *Sedum Rhodiola*, *Saxifraga rivularis* var. *Laurentiana*, *Potentilla megalantha*, etc.

Hills and terraces are mostly covered with fine grassy and herbaceous carpets. On hills and terraces are found, *Phleum alpinum*, *Poa macrocalyx*, *Festuca eriantha*, *Polygonum viviparum*, *Aconitum kamtschaticum*, *Sanguisorba tenuifolia* var. *kurilensis*, *Parnassia palustris*, *Geranium erianthum*, *Pedicularis respinata*, *Pedicularis Chamissonis*, var. *Maximowicziana*, etc. Sometimes the dwarf shrubby communities are formed there, composed of *Empetrum nigrum*, *Vaccinium Vitis-Idaea*, *Vaccinium uliginosum*, *Vaccinium Chamissonis*, *Rhododendron kamtschaticum*, etc.

Bush formations are simple, represented mostly by *Alnus Maximowiczii*, forming impenetrable thickets. Occasionally small groups of *Sorbus sambucifolia* are found mixed here and there in the formation. The development of the alder bush is better on the western and the northern sides than the eastern and southern sides. The height of the alder trees varies according to the environment. They show a luxuriant growth near Maruyama on the southern coast (*Minamiura*) where they attain a height of 3 m. or sometimes more, but farther up on the exposed ridge, very dwarf shrubby growth only is met with.

The general aspect of the alder bushes are well portrayed in Fig. 2, 3, 4. Under the alders, *Filipendula kamtschatica* is most commonly found, accompanied by *Dryopteris dilatata* var. *deltoidea*, *Polystichum Braunii*, *Urtica platyphylla*, *Anthriscus sylvestris*, etc. It is very interesting that the collectors could not find *Pinus pumila* which occurs so commonly in the other islands of the Kuriles.

The alpine meadow region stretches at the height of over 500–700 m. from the northern to the eastern flank, and over 800 m. from the western to the southern flank. *Anemone narcissiflora* var. *villosissima* is most prominent between 700–800 m. On sandy or gravelly slopes between 800–1500 m., *Alsine macrocarpa*, *Oxytropis pumilio*, *Artemisia borealis*, etc. occur. *Saxifraga Merckii* climbed up to 1500 m.

ENUMERATION OF PLANTS.

PTERIDOPHYTA.

Polypodiaceæ.

Dryopteris dilatata A. GRAY, Man. p. 631; KUDO,^{a)} Fl. Paramushir, p. 59.

var. ***deltoidea*** TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 179 and^{b)} Fl. Shikotan, p. 500.

Asplenium spinulosum MIYABE,^{c)} Fl. Kuril. p. 275, (not BAK.), in part.

Asplenium spinulosum L. var. *dilatatum* HOOK.; YABE and YENDO^{d)} Pl. Shumshu, p. (172).

Nom. Jap. *Shirane-warabi*.

Hab. In shady places, common: Maruyama, Minamiura, July 4.

Distr.* var. Shikotan, Iturup, Shumshu, Alaid; sp. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu.

Polystichum Braunii FÉE. Gen. Fil. p. 52; C. CHRIST. Ind. Fil. p. 579;

TAKEDA, in Bot. Mag. Tokyo, Vol. XXIV, p. 178 and Fl. Shikotan, p. 500;

a) KUDO, Fl. Paramushir, in Journ. Coll. Agr. Hokkaido Imp. Univ. XI, pt. 2.

b) TAKEDA, in Journ. Linn. Soc. Bot. XLII, p. 435–510.

c) MIYABE, Fl. Kuril. in Mem. Boston Soc. Nat. Hist. IV, p. 203–274.

d) YABE and YENDO, Pl. Shumshu, in Bot. Mag. Tokyo, XVIII, p. 167–198.

* Distribution here treated is limited to the Kurile Archipelago.

References here quoted are mostly limited to the Kuriles.

KODAMA, in Bot. Mag. Tokyo, XXIX, p. 323.

Nom. Jap. *Hoso-inode*.

Hab. In shady places under the alder: Minamiura, July 28.

Distr. Shikotan, Alaid.

Ophioglossaceæ.

Botrychium Lunaria Sw. in Schrad. Jour. Bot. 2, p. 110 (1800); MIYABE, l. c. p. 273; YABE and YENDO, l. c. p. (172); TAKEDA, Fl. Shikotan, p. 499; MIYABE and KUDO, Materials Fl. Hokkaido, n. 72, in Trans. Sapporo Nat. Hist. Soc. VI, p. 123; KUDO, l. c. p. 61; NAKAI, in Bot. Mag. Tokyo, XL, p. 378.

Nom. Jap. *Hime-hanawarabi*, *Hebinoshita*.

Hab. In grassy places: Minamiura, July 9. Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Equisetaceæ.

Equisetum arvense L. Sp. Pl. ed. 1, p. 1061; MIYABE, l. c. p. 273; MATSUDAIRA,* in Bot. Mag. Tokyo, IX, p. (470); YABE and YENDO, l. c. p. (172); TAKEDA, l. c. p. 499; KUDO, l. c. p. 612.

Nom. Jap. *Sugina*.

Hab. In grassy places: Gotôzan, July 23. Very common near Kitaura in wet places.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Lycopodiaceæ.

Lycopodium Selago L. Sp. Pl. ed. 1, p. 1102; TAKEDA, in Bot. Mag. Tokyo, XXIII, p. 203.

form. **appressum** DESV. Ann. Linn. VI, p. 180; ASCHERS. u. GRAEBN. Syn. Fl. Mit.-Europ. I, p. 151.

Nom. Jap. *Chishima-kosugiran*.

Hab. On rocky cliffs: Namikawa, July 23.

Distr. form. Alaid; sp. Urup, Paramushir, Shumshu.

* MATSUDAIRA, List of Plants collected in Kurile Islands by T. KITAHARA.

Lycopodium alpinum L. Sp. Pl. ed. 1, p. 1104.

var. **genuinum** TAKEDA, l. c. p. 227.

Lycopodium alpinum L. l. c.; YABE and YENDO, l. c. p. (172); KUDO, l. c. p. 64.

Nom. Jap. *Chishima-hikagenokazura*.

Hab. On sandy or gravelly slopes (ca. 700 m. alt.): Mt. Alaid, July 15.

Distr. Paramushir, Shumshu, Alaid.

ANGIOSPERMÆ.

Monocotyledones.

Gramineæ.

Phleum alpinum L. Sp. Pl. ed. 1, p. 59; YABE and YENDO, l. c. p. (196); KUDO, l. c. p. 68.

Nom. Jap. *Miyama-awagaeri*.

Hab. In grassy places: Namikawa, July 23.

Distr. Paramushir, Shumshu, Alaid.

Poa macrocalyx TRAUTV. et MEY. Fl. Ochot. p. 103; KUDO, Fl. N. Saghal. p. 59. (Determ. by Dr. M. HONDA.)

Nom. Jap. *Karafuto-ichigotsunagi*.

Hab. Minamiura, July 8. Namikawa, July 23.

Distr. Alaid.

Poa cenisia ALL. Auct. 40, no. 2209 (1789); TAKEDA, Fl. Shikotan, p. 496; KUDO, Fl. Paramushir, p. 74. (Determ. by Dr. M. HONDA.)

Nom. Jap. *Miyama-somosomo*.

Hab. Minamiura, July 11.

Distr. Shikotan, Paramushir, Alaid.

Festuca eriantha HONDA.

Nom. Jap. *Araitosô*.

Hab. In grassy places: Minamiura, July 8 and 11.

Distr. Endemic.

Festuca rubra L. Sp. Pl. ed. 1, p. 74; MIYABE, l. c. p. 271; YABE and YENDO, l. c. p. (175); TAKEDA, l. c. p. 497; KUDO, l. c. p. 74.

Nom. Jap. *Ô-ushinokegusa*.

Hab. Grassy places: Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Elymus mollis TRIN. in Spr. Neue. Entdeck. II, p. 72; MIYABE, l. c. p. 271; MATSUDAIRA, l. c. p. (470); YABE and YENDO, l. c. p. (175); TAKEDA, l. c. p. 497; KUDO, l. c. p. 75.

Elymus arenarius MIQ. Prol. Fl. Jap. p. 174; HACK. Bull. Herb. Boiss. VII, p. 715; MATSUM. Ind. Pl. Jap. II, i, p. 52 (not LINN.).

Nom. Jap. *Hama-ninniku*.

Hab. Sandy beaches, common: Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Cyperaceæ.

Carex macrochaeta C. A. MEY. in Mém. Acad. St. Pétersb. I, p. 224; KÜK. Cyp.-Car. p. 412.

var. **paramushirensis** KUDO, l. c. p. 81.

Nom. Jap. *Chishima-kurosuge*.

Hab. In grassy places: Sekinezaki, July 6.

Distr. Paramushir, Alaid.

Carex scita MAXIM. in Mém. Biol. XII, p. 564; KÜK. l. c. p. 414; FRANCH., Car. As. Or. p. 143; TAKEDA, l. c. p. 494.

form. **koraginensis** KUDO, l. c. p. 81.

Carex koraginensis MEINSH. in Act. Hort. Petropol. XVIII, p. 351.

Carex scita MAXIM. var. *koraginensis* KÜK. l. c. p. 415.

Nom. Jap. *Kita-mashikesuge*.

Hab. Common in grassy hill-sides: Maruyama, Minamiura, July 4. Namikawa, July 23.

Distr. form. Paramushir, Alaid; sp. Shikotan, Iturup, Urup, Paramushir, Shumshu.

Carex caryophyllea LATOUR. Chlor. Lugd. 1785, p. 27; KÜK., l. c. p. 463; KUDO, l. c. p. 82.

Nom. Jap. *Chishima-shibasuge*.

Hab. In grassy places: Kitaura, July 23.

Distr. Paramushir, Alaid.

Juncaceæ.

Luzula plumosa E. MEY. in Linnaea XXII, p. 387; BUCH. in ENGL. Pfl.-reich. IV, 36, p. 48; KUDO, l. c. p. 85.

Nom. Jap. *Nukaboshisô*.

Hab. In grassy places: Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Alaid.

Luzula Kjellmanniana MIYABE et KUDO, Mater. Fl. Hokkaido, n. 5, in Trans. Sapporo Nat. Hist. Soc. V, p. 38; KUDO, l. c. p. 86.

Luzula arcuata WAHLENB. form. *latifolia* KJELLM. Wiss. Ergebn. Vega Exped. (1883) p. 374.

Nom. Jap. *Chishima-suzumenohie*.

Hab. In grassy places, common: Namikawa, July 23.

Distr. Urup, Shimushir, Rashua, Paramushir, Shumshu, Alaid.

Juncus balticus WILLD. in Berl. Mag. III, p. 298; MIYABE, l. c. p. 266.

var. **Haenkei** BUCH. Monog. Juncac. p. 215 and in ENGL. Pfl.-reich. IV, 36, p. 145; YABE and YENDO, l. c. p. (173); TAKEDA, l. c. p. 491; KUDO, l. c. p. 88.

Nom. Jap. *Ô-inui, Hamai*.

Hab. In wet grassy places near the beach: Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Liliaceæ.

Tofieldia nutans WILLD. ex SCHULT. Syst. VII, p. 1573; YABE and YENDO, l. c. p. (177); TAKEDA, in Bot. Mag. Tykyo, XXIV, p. 317 and Fl. Shikotan, p. 490; MIYABE and KUDO, Mater. Fl. Hokkaido, n. 27, in Trans. Sapporo

Nat. Hist. Soc. V, p. 75; KUDO, Fl. Paramushir, p. 89.

Tofieldia gracilis MATSUDAIRA, in Bot. Mag. Tokyo, IX, p. (470), (not FR. et SAV.).

Nom. Jap. *Chishima-zekishô*.

Hab. In rocky places: Minamiura, Aug. 9.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Veratrum album L. Sp. Pl. ed. 1, p. 1044; LEDEB. Fl. Ross. IV, p. 208; MIYABE, l. c. p. 266; YABE and YENDO, l. c. p. (177); TAKEDA, l. c. p. 490.

var. **oxycephalum** MIYABE et KUDO, in MIYABE and MIYAKE, Fl. Saghal. p. 484; KUDO, l. c. p. 90.

Veratrum oxysepalum TURCZ. in Bull. Soc. Nat. Mosc. (1840), p. 79; LEDEB. Fl. Ross. IV, p. 209.

Nom. Jap. *Yezo-baikeisô*.

Hab. In shady places of the alder wood, common: Namikawa, July 22.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Allium strictum SCHRAD. Hort. Goet. t. 1 (1809); RGL. All. Monog. p. 164; MIYABE and KUDO, Mater. Fl. Hokkaido, no. 22, in Trans. Sapporo Nat. Hist. Soc. V, p. 71; KUDO, l. c. p. 90.

Nom. Jap. *Miyama-rakkyo*.

Hab. In grassy places: Minamiura, July 4. Namikawa, July 23.

Distr. Paramushir, Shumshu, Alaid.

Lilium medeoloides A. GRAY, Bot. Jap. p. 413; NAKAI, in Bot. Mag. Tokyo, XXXI, p. 7; TAKEDA, l. c. p. 489; KUDO, l. c. p. 91; WILSON, Lil. Eas. As. p. 90.

Lilium avenaceum FISCH. ex MAXIM. in Gartenfl. (1865), p. 290; MIYABE, l. c. p. 265; YABE and YENDO, l. c. p. (177).

form. **kurilense** KUDO, l. c. p. 91.

Lilium medeoloides A. GRAY var. *kurilense* NAKAI, in Bot. Mag. Tokyo, XXXI, p. 8.

Nom. Jap. *Hosoba-kurumayuri*, *Chishima-kurumayuri*.

Hab. In herbaceous lands: Minamiura, July 8 and Aug. 25.

Distr. *form.* Iturup, Shikotan, Paramushir, Shumshu, Alaid; *sp.* Kunashiri,

Shikotan, Iturup, Urup.

Fritillaria camtschatcensis KER-GAWL. in Bot. Mag. sub. t. 1216; MIYABE, l. c. p. 265; YABE and YENDO, l. c. p. (176); TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 316 and Fl. Shikotan, p. 490; KUDO, l. c. p. 91.

Nom. Jap. *Kuroyuri*.

Hab. In grassy hill-sides: Minamiura, July 18.

Distr. Kunashiri, Shikotan, Iturup, Rashua, Paramushir, Shumshu, Alaid.

Lloydia serotina REICHB. Fl. Germ. Exc. p. 102; YABE and YENDO, l. c. p. (177); KUDO, l. c. p. 92.

Lloydia alpina SALISB. Trans. Hort. Soc. I, p. 328; MATSUM. Ind. Pl. Jap. II, i, p. 206.

Nom. Jap. *Chishima-amana*.

Hab. In herbaceous places on the terrace: Todozaki, Aug. 5.

Distr. Urup, Shimushir, Paramushir, Shumshu, Alaid.

Majanthemum dilatatum NELS. et MACBR. in Bot. Gaz. LXI, p. 30; NAKAI, in Bot. Mag. Tokyo, XXXVIII, p. (180).

Majanthemum bifolium F. W. SCHM. var. *kamtschaticum* TRAUTV. et MEY. Fl. Ochot. p. 92; MIYABE, l. c. p. 264; MATSUDAIRA, l. c. p. (470); YABE and YENDO, l. c. p. (177); TAKEDA, l. c. p. 489.

Majanthemum kamtschaticum NAKAI, in Bot. Mag. Tokyo, XXXI, p. 282.

Majanthemum canadense DESF. var. *kamtschaticum* KUDO, l. c. p. 92.

Nom. Jap. *Maizurusô*.

Hab. In grassy places: Kitaura, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Iridaceæ.

Iris setosa PALL. ex LINK, Jahrb. I, iii, p. 71; MAXIM. Mém. Biol. X, p. 713; MIYABE, l. c. p. 263; YABE and YENDO, l. c. p. (178); TAKEDA, l. c. p. 488; KUDO, l. c. p. 93.

Nom. Jap. *Hiôgiayame*.

Hab. In wet grassy places, common: Sekinezaki, July 6. Namikawa, July 22.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Orchidaceæ.

Orchis aristata FISCH. ex LINDL. Gen. et Spec. Orchid. Pl. p. 262; MIYABE, l. c. p. 262; YABE and YENDO, l. c. p. (178); MATSUDAIRA, l. c. p. (470); TAKEDA, l. c. p. 487.

Orchis latifolia L. var. *Beeriana* CHAM. et SCHL. in Linnaea III, p. 26; LEDEB. Fl. Ross. IV, p. 54.

Orchis Beeriana KUDO, l. c. p. 94.

Nom. Jap. *Hakusanchidori*.

Hab. In grassy or herbaceous places, common: Maruyama, Minamiura, July 4.

form. **punctata**

Nom. Jap. *Uzuraba-hakusanchidori*.

Hab. In grassy or herbaceous places: Minamiura, Maruyama, July 4.

The leaves of this form are punctated with the red-purplish spots on the surface. It is found associated with the type in grassy and herbaceous places.

form. **albiflora**

Nom. Jap. *Shirobana-hakusanchidori*.

Hab. In grassy places, rare: Kitaoura, July 4.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Shimushir, Rashua, Paramushir, Shumshu, Alaid.

DICOTYLEDONES.

Archichlamydæ.

Salicaceæ.

Salix kurilensis KOIDZ. in Bot. Mag. Tokyo, XXXII, p. 62.

Salix arctica TOKUBUCHI, in Bot. Mag. Tokyo, X, p. (123); SEEM. Sal. Jap.

p. 79; YABE and YENDO, l. c. p. (178).

Salix arctica PALL. var. *kurilensis* KUDO, l. c. p. 96.

Nom. Jap. *Chishima-yanagi*.

Hab. Maruyama, Minamiura, July 4.

Distr. Urup, Shimushir, Rashua, Paramushir, Shumshu, Alaid.

Salix paramushirensis KUDO, l. c. 97.

Nom. Jap. *Paramushiro-yanagi*.

Hab. Karasawa, Minamiura, July 8.

Distr. Paramushir, Alaid.

This willow is very rare in the island in spite of the abundance of the former species. It was observed in the alder bush about 200 m. alt.

Betulaceæ.

Alnus Maximowiczii CALL. apud C. K. SCHN. Ill. Handb. d. Laubholzk. I, p. 122 and in SARG. Pl. Wils. II, p. 505; KUDO, l. c. p. 98; MIYABE and KUDO, Icon. Ess. For. Trees Hokkaido, fas. X, no. 30.

Alnus viridis DC. var. *sibirica* RGL. Bemerck. Gatt. Betula u. Alnus, p. 35; MIYABE, l. c. p. 259; MATSUM. Rev. Alni. Spec. Jap. p. 1; YABE and YENDO, l. c. p. (178); SHIRASAWA, Icon. Ess. For. Trees, Jap. II, p. 41.

Alnus alnobetula HERTIG, var. *furticosa* WINKL. in ENGL. Pfl.-reich. IV, 61, p. 106; MATSUM. Ind. Pl. Jap. II, ii, p. 16; TAKEDA, l. c. p. 485.

Nom. Jap. *Miyama-hannoki*.

Hab. The dominant shrubby species in the island.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Urticaceæ.

Urtica platyphylla WEDD. Monogr. p. 86; TAKEDA, in Bot. Mag. Tokyo, XXV, p. 24 and Fl. Shikotan, p. 484; KUDO, l. c. p. 98.

Urtica dioica L. var. *platyphylla* WEDD. in DC. Prodr. XVI, 1, p. 51; MIYABE, l. c. p. 258; YABE and YENDO, l. c. p. (178).

Nom. Jap. *Ôba-irakusa*, *Yezo-irakusa*.

Hab. Under the alder, common: Minamiura, July 11.

Distr. Kunashiri, Iturup, Paramushir, Shumshu, Alaid.

Polygonaceæ.

Oxyria digina HILL. Hort. Kew. p. 158; YABE and YENDO, l. c. p. (179); TAKEDA, Fl. Shikotan, p. 484; KUDO, l. c. p. 100.

Oxyria renifolia HOOK. Fl. Scot. p. 111; MATSUDAIRA, l. c. p. (469).

Nom. Jap. *Maruba-gishigishi, Jinyô-suiba.*

Hab. In wet places: Karasawa, Kitaura, July 23.

Distr. Shikotan, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Polygonum viviparum L. Sp. Pl. ed. 1, p. 360; LEDEB. Fl. Ross. III, p. 519; MIYABE, l. c. p. 257; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (179); TAKEDA, l. c. p. 483; KUDO, l. c. p. 100.

Nom. Jap. *Komochi-toranoo, Mukago-toranoo.*

Hab. In grassy places, common: Gotôzan, July 23. Namikawa, July 23.

Distr. Kunashiri, Shikotsn, Iturup, Urup, Paramushir, Shumshu, Alaid.

Caryophyllaceæ.

Stellaria yezoensis MAXIM. in Mél. Biol. XII, p. 419; MIYABE, l. c. p. 221; YABE and YENDO, l. c. p. (180).

Stellaria borealis BIEGEL. var. *corollina* FENZL. lusus *sachalinensis* RGL. in Ind. Sem. Hort. Petropol. (1883), p. 33.

Stellaria sachalinensis TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 257 and Fl. Shikotan, p. 454; KUDO, l. c. p. 103.

Nom. Jap. *Yezo-fusuma, Shiraoihakobe.*

Hab. In shady places of the alder bush: Karasawa, July 8.

Distr. Kunashiri, Shikotan, Iturup, Urup, Ketoj, Paramushir, Shumshu, Alaid.

Stellaria ruscifolia WILLD. ex SCHLECHT. Berl. Mag. 1816, p. 194; MAXIM. in Mél. Biol. IX, p. 46; MIYABE, l. c. p. 221; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (180); TAKEDA, Fl. Shikotan, p. 454; KUDO, l. c. p. 103.

Nom. Jap. *Shikotan-hakobe, Nagi-hakobe.*

Hab. On rocky cliffs: Karasawa, July 8.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

It grows mostly on rocky cliffs, especially along the sea-shore. The collectors hardly found it over 800 m. alt.

Cerastium boreale TAKEDA, in Kew Bull. (1911), p. 105.

var. **herbaceo-bracteatum** TAKEDA, l. c. p. 106 and Fl. Shikotan, p. 454.

Cerastium alpinum L. var. *Fischerianum* MIYABE, l. c. p. 220, (in part).

Nom. Jap. *Kita-miminagusa*.

Hab. On disintegrated slopes near the shore, not common: Todozaki, Aug. 5.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shumshu, Alaid.

Sagina procumbens L. Sp. Pl. ed. 1, p. 1753; DC. Prodr. I, p. 389; LEDEB. Fl. Ross. I, p. 338; RGL. Pl. Radd. I, p. 305; HOOK. Fl. Bor. Am. I, p. 92; TORR. et GRAY, Fl. N. Am. p. 177; HEGI, Ill. Fl. Mittel.-Europ. III, p. 381.

Nom. Jap. *Araitō-tsumekusa*.

Hab. On disintegrated slopes along the sea-shore: Todozaki, Aug. 5.

Distr. Alaid.

Alsine macrocarpa FENZL. Verbr. Alsin. in Tab. ad p. 18; LEDEB. Fl. Ross. I, p. 353; RGL. Pl. Radd. I, p. 235; MAKINO, in Bot. Mag. Tokyo, XVII, p. 213; MATSUM. Ind. Pl. Jap. II, ii, p. 78.

Arenaria macrocarpa PURSH. Fl. Bor. Am. I, p. 318; DC. Prodr. I, p. 405; HOOK. Fl. Bor. Am. I, p. 101; TORR. et GRAY, Syn. N. Am. p. 182; GRAY, Syn. N. Am. I, p. 247.

var. **muscorum** FISCH. in Pl. Radd. I, p. 240.

Alsine macrocarpa FENZL. lusus 2, Fenzl. in LEDEB. Fl. Ross. I, p. 353.

Nom. Jap. *Araitō-miyama-tsumekusa*.

Hab. On sandy slopes: Kitaura, July 23, July 26.

Distr. Alaid.

The species is a new addition to the Flora of the Kuriles. It grows most abundantly at the altitude of from 700 m. to about 1000 m.

Ammodenia major KUDO, l. c. p. 104.

Arenaria peploides L. var. *major* HOOK. Fl. Bor. Am. I, p. 102.

Honkeneya peploides EHRH. var. *oblongifolia* FENZL. in LEDEB. Fl. Ross. I, p. 358; MAKINO and NEMOTO, Fl. Jap. p. 999.

Ammodenia peploides RUPR. var. *oblongifolia* MAXIM. in Mém. Biol. IX, p. 34; TAKEDA, l. c. p. 455.

Arenaria peploides L. var. *oblongifolia* WATSON. Ind. p. 97; MIYABE, l. c. p. 221; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (180).

Nom. Jap. *Hama-hakobe*.

Hab. On sandy beaches, common: Sekinezaki, July 6. Minamiura, July 18.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Shiashkotan, Paramushir, Shumshu, Alaid.

Moehringia lateriflora FENZL. Verb. Alsín. Tab. p. 18; LEDEB. Fl. Ross. I, p. 371; YABE and YENDO, l. c. p. (180); TAKEDA, l. c. p. 455; KUDO, l. c. p. 104.

Nom. Jap. *Ôyama-fusuma*, *Ôyama-hakobe*.

Hab. In grassy places, common: Minamiura, July 11. Kitaura, July 21.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Silene repens PATRIN. in PERS. Syn. I, p. 500; LEDEB. Fl. Ross. I, p. 308; WILLIAMS, in Journ. Linn. Soc. XXXII, p. 161; TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 156; MIYABE and MIYAKE, Fl. Saghal. p. 65.

Nom. Jap. *Karafuto-mantema*.

Hab. On gravelly slopes: Karasawa, Minamiura, Aug. 8 and Aug. 12. On rocky cliffs: Todozaki, Aug. 4.

Distr. Only in this island in the Kuriles.

var. **latifolia** TURCZ. apud RGL. Bull. Soc. Nat. Mosc. (1861), p. 561; WILLIAMS, l. c. p. 161; TAKEDA, l. c. p. 156 and Fl. Shikotan, p. 453; MIYABE and MIYAKE, l. c. p. 65.

Nom. Jap. *Chishima-mantema*.

Hab. In herbaceous places on the terrace: Uomizaki, Aug. 4.

Distr. Shikotan, Iturup, Alaid.

The species climbs up to the place as far as 800 m. alt.

Ranunculaceæ.

Aconitum kamtschaticum WILLD. et REICHB. Ueber Gatt. Aconit. p. 39; YABE and YENDO, l. c. p. (182); NAKAI, in Bot. Mag. Tokyo, XXXI, p. 225; KUDO, l. c. p. 106.

Nom. Jap. *Chishima-torikabuto*.

Hab. Under alder bushes: Minamiura, July 11, Aug. 10 and 13.

Distr. Kunashiri, Iturup, Urup, Paramushir, Shumshu, Alaid.

This species is very common around the base of the mountain, especially in the margin of the alder bush, showing the luxuriant growth.

Anemone narcissiflora L. Sp. Pl. ed. 1, p. 542; KUDO, l. c. p. 107.

var. **villosissima** DC. Prodr. I, p. 22; MIYABE, l. c. p. 215; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (182); TAKEDA, Fl. Shikotan, p. 449.

Nom. Jap. *Senkasô, Chishima-ichige*.

Hab. In herbaceous places: Maruyama, Minamiura, July 4.

Distr. *sp.* Shikotan, Iturup, Urup, Rashua, Shiashkotan, Paramushir, Shumshu, Alaid.

It grows very commonly at the altitude of between 500 m. and 800 m., forming a pretty alpine meadow, especially prominent on the southern flank of Mt. Alaid. It occurs also in herbaceous places on the terrace or hill, but not so abundant in the upper alpine region.

Ranunculus auricomus L. Sp. Pl. ed. 1, p. 551; DC. Prodr. I, p. 35; YABE and YENDO, l. c. p. (181); KUDO, Fl. N. Saghal. p. 136.

Nom. Jap. *Chishima-kimpôge*.

Hab. In grassy places, not common: Sekinezaki, July 11.

Distr. Shumshu, Alaid.

Thalictrum minus L. Sp. Pl. ed. 1, p. 546; LECOY. Monogr. Thalictr. p. 199.

var. **nanum** LECOY. l. c. p. 127; MIYABE, l. c. p. 214, excl. syn.; TAKEDA, Journ. Bot. (1910), p. 265 and Fl. Shikotan, p. 449; KUDO, l. c. p. 109.

Nom. Jap. *Ko-karamatsu*.

Hab. In grassy places, common: Minamiura, July 4. Namikawa, July 23.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Shimushir, Paramushir, Alaid.

Papaveraceæ.

Papaver nudicaule L. Sp. Pl. ed. 1, p. 507; KUDO, l. c. p. 109.

var. **kurilense**

Plant caespitose, the tuft attaining 10 cm. across; root elongated. Leaves radical, ovate or oblong ovate in outline, hirsute, pinnately partite; segments 3-4 pairs, oblong, oblong obovate, acute or obtuse, or insiso-cleft; petioles villosa-hirsute, the lower portion dilated. Scape single, one flowered, elongate, 5-12 cm. long, terete, hirsute. Flowers white, 1.5-2.5 cm. in diameter; outer sepals larger, inner smaller, obovate, somewhat crenulate on the margin. Capsule ovoid or obovoid globose, hispid with adpressed brown hairs.

Nom. Jap. *Araitto-hinageshi.*

Hab. On gravelly slopes: Karasawa, July 8. Gotôzan, July 22.

Distr. Paramushir, Alaid.

form. **pilosum**

Leaves pilose, pinnately partite, segments 3-4 pairs, narrowly oblong or narrowly oblong ovate, acute or obtuse, entire; petioles long, pilose.

Nom. Jap. *Hosoba-araitto-hinageshi.*

Hab. Gotôzan, July 22.

Distr. Alaid.

This variety is common on sand-gravelly slopes of Mt. Alaid at the altitude of between 700 m. and 1000 m. It is often distributed downward through the valley and grows on sandy places near the beach or sometimes on disintegrated slopes by the shore.

Cruciferaæ.

Cochlearia oblongifolia DC. Syst. II, p. 363 and DC. Prodr. I, p. 173; Boiss. in Bull. Herb. Boiss. VII, p. 796; YABE and YENDO, l. c. p. (182); KUDO, l. c. 110.

Nom. Jap. *Tomoshirisô.*

Hab. On wet rocky cliffs along the sea-shore: Sekinezaki, July 6. Kita-

ura, July 23.

Distr. Kunashiri, Iturup, Urup, Paramushir, Shumshu, Alaid.

Barbarea orthoceras LEDEB. Ind. Sem. Hort. Dorp. (1824), and Fl. Ross. I, p. 114; TAKEDA, l. c. p. 452; KUDO, l. c. p. 110.

Barbarea vulgaris STEJN. Add. Comm. Isl. p. 530; MIYABE, l. c. p. 217; YABE and YENDO, l. c. p. (183).

Nom. Jap. *Yama-garashi*.

Hab. In wet places: Minamiura, July 8. Karasawa, Minamiura, July 8. Mt. Alaid, July 15.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

It is distributed as far as about 600 m. alt. from the sea-shore.

Draba borealis DC. Syst. II, p. 342 and Prodr. I, p. 168; TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 255 and Fl. Shikotan, p. 452; KUDO, l. c. p. 114.

Draba Unalaschikiana DC. Syst. II, p. 342 and Prodr. I, p. 170; MATSUM. Ind. Pl. Jap. II, ii, p. 157.

Odontocyclus kurilensis TURCZ. in Bull. Soc. Mosc. (1840), p. 65.

Draba borealis DC. var. *genuia* RGL. et TIL., Fl. Ajan. p. 59; MIYABE and MIYAKE, Fl. Saghal. p. 47.

Draba borealis DC. var. *kurilensis* FR. SCHM. Fl. Sachal. p. 114; MIYABE, l. c. p. 218; BOISS. in Bull. Boiss. VII, p. 795; YABE and YENDO, l. c. p. (183).

Nom. Jap. *Yezo-inunazuna*, *Shirobana-inunazuna*.

Hab. In gravelly places: Mt. Alaid, (ca. 700 m.), July 15. On rocky cliffs: Sekinezaki, July 6. Karasawa, Minamiura, July 6. Todozaki, Aug. 5.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Arabis lyrata L. Sp. Pl. ed. 1, p. 665; NAKAI, in Bot. Mag. Tokyo, XXXII, p. 239.

var. **kamtschatica** FISCH. apud DC. Prodr. I, p. 146; NAKAI, l. c. p. 239; KUDO, l. c. p. 113.

Arabis petraea LAM. var. *kamtschatica* RGL. Pl. Radd. I, p. 167; MATSUM. Ind. Pl. Jap. II, ii, p. 148.

Nom. Jap. *Chishima-hatazao*.

Hab. In dry places: Minamiura, July 8. Karasawa, Minamiura, July 8. In gravelly places: Mt. Alaid, (ca. 700 m.), July 15. In wet places along the stream: Karasawa, Kitaura, July 23.

Distr. Shikotan, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Arabis japonica A. GRAY, Bot. Jap. p. 381; TAKEDA, l. c. p. 452; KUDO, l. c. p. 113.

Arabis Stelleri A. DC. var. *japonica* FR. SCHM. Fl. Sachal. p. 111; MIYABE, l. c. p. 217; NAKAI, in Bot. Mag. Tokyo, XXXII, p. 241.

Nom. Jap. *Hama-hatazao*.

Hab. Under the alder bushes near the sea-shore: Karasawa, July 8. In grassy places near the sea: Maruyama, Minamiura, July 4.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Crassulaceæ.

Sedum Rhodiola DC. Fl. Fr. ed. 3, IV, p. 386 and Prodr. III, p. 401; MIYABE, l. c. p. 234.

var. **atropurpureum** MAXIM. Mém. Biol. XI, p. 737.

Sedum atropurpureum TURCZ. in Bull. Soc. Mosc. XIII, p. 70; LEDEB. Fl. Ross. II, p. 179.

Nom. Jap. *Murasaki-iwabenkei*.

Hab. On rocky cliffs along the sea-shore: Sekinezaki, July 6.

Distr. sp. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Saxifragaceæ.

Saxifraga Merkii FISCH. in STERNB. Rev. Sax. Suppl. I, p. 1 and II, p. 19; ENGL. Monogr. Saxif. p. 208; MIYABE, l. c. p. 233; KUDO, l. c. p. 116.

var. **typica** ENGL. et ERM. in ENGL. Pfl.-reich. IV, 117, I, p. 88.

Saxifraga Merkii FISCH. var. *Idsuroei* YABE et YENDO, (not ENGL.), l. c. p. 184.

Nom. Jap. *Chishima-kumomagusa*.

Hab. At a higher altitude (over 1500 m.) of Mt. Alaid, July 15. Kitaura,

July 23 and 26.

Distr. *sp.* Iturup, Urup, Paramushir, Alaid.

This species sometimes grows downward along the valley as low as 200 m. alt. on the northern flank (the Kitaura side) of Mt. Alaid, while it grows mainly in the alpine region on the southern flank.

Saxifraga rivularis L. Sp. Pl. ed. 1, p. 404; ENGL. u. ERM. in ENGL. Pfl.-reich. IV, 117, I, p. 277.

var. **eurivularis** ENGL. et ERM. l. c. p. 279.

form. **typica** ENGL. et ERM. l. c. p. 279.

Nom. Jap. *Hime-kiyoshisô. Araitô-kiyoshisô.*

Hab. On gravelly slopes: Karasawa, Kitaura, July 26.

var. **Laurentiana** ENGL. Monogr. Saxifr. p. 105; YABE and YENDO, l. c. p. (184); TAKEDA, in Journ. Bot. (1911), p. 114; ENGL. u. ERM. l. c. p. 282; KUDO, l. c. p. 116.

Saxifraga exilis YABE and YENDO, l. c. p. (184); ENGL. u. ERM. l. c. p. 267. p. p. (not STEPH.).

Nom. Jap. *Kiyoshisô.*

Hab. On rocky cliffs, common: Sekinezaki, July 6. Sakichizaki, July 8.

Distr. var. *a* Alaid; var. *β* Iturup, Urup, Paramushir, Shumshu, Alaid.

Saxifraga punctata L. Sp. Pl. ed. 1, p. 401; ENGL. Monogr. Saxifr. p. 137; YABE and YENDO, l. c. p. (184); TAKEDA, in Journ. Bot. (1911), p. 111; ENGL. u. ERM. in ENGL. Pfl.-reich. IV, 117, I, p. 9; KUDO, l. c. p. 117.

var. **typica** ENGL. et ERM. l. c. p. 10.

form. 2. **purpurascens** ENGL. et IRMSCH. in ENGL. et ERM. l. c. p. 10.

Saxifraga purpurascens KOMAROV, in FEDDE Repr. XIII, p. 167.

Nom. Jap. *Murasaki-iwabuki.*

Hab. On gravelly slopes: Kitaura, Karasawa, July 23.

form. 4. **corymbosa** ENGL. et IRMSCH. l. c. p. 11.

Nom. Jap. *Chishima-iwabuki.*

Hab. On rocky cliffs: Namikawa, July 23.

form. 5. **coarctata** STERNB. Rev. Sax. Suppl. II, p. 7; ENGL. u. ERM. l.

c. p. 11.

Nom. Jap. *Araito-iwabuki*.

Hab. On rocky cliffs: Sakichizaki, July 8.

Distr. *form.* 2. Alaid; *form.* 3. Shimushir, Paramushir, Shumshu, Alaid;
form. 5. Shumshu, Alaid.

Saxifraga bronchialis L. Sp. Pl. ed. 1, p. 400; ENGL. Monogr. Saxifr. p. 215; MIYABE, l. c. p. 233; ENGL. u. ERM. in ENGL. Pfl.-reich. IV, 117, II, p. 458; KUDO, l. c. p. 117.

var. **chererioides** ENGL. Monogr. Saxifr. p. 216; ENGL. u. ERM. l. c. p. 458; TAKEDA, in Journ. Bot. (1911), p. 113 and Fl. Shikotan, p. 464.

Nom. Jap. *Shikotansô*.

Hab. Rocky places: Karasawa, Kitaura, July 8.

Distr. *sp.* Shikotan, Paramushir, Shumshu, Alaid.

Chrysosplenium kamtschaticum FISCH. in DC. Prodr. IV, p. 48; MAXIM. Mém. Biol. IX, p. 765; MIYABE, l. c. p. 234; YABE and YENDO, l. c. p. (184); KUDO, l. c. p. 118.

Nom. Jap. *Chishima-nekonomesô*.

Hab. Under alder bushes: Karasawa, Minamiura, July 8. Minamiura July 11.

Distr. Kunashiri, Iturup, Urup, Paramushir, Shumshu, Alaid.

Parnassia palustris L. Sp. Pl. ed. 1, p. 273; KUDO, l. c. p. 118.

var. **vulgaris** WAHLB. Fl. Lapp. p. 74; NAKAI, in Bot. Mag. Tokyo, XL, p. 470.

Nom. Jap. *Umebachisô*.

Hab. In grassy and herbaceous places, very common: Namikawa, July 23. Ichinowatari, Aug. 2. Todozaki, Aug. 5.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Rosaceæ.

Aruncus sylvestris KOSTEL. in Ind. Prag. p. 138; KOIDZ. Consp. Rosac. Jap. p. 26.

var. **kamtschatica** MAXIM. in Act. Hort. Petrop. VI, p. 170; MIYABE, l.

c. p. 227; MATSUDAIRA, l. c. p. (468); YABE and YENDO, l. c. p. (186); TAKEDA, Fl. Shikotan, p. 459; KUDO, l. c. p. 119.

Nom. Jap. *Chishima-yamabukishôma*.

Hab. In grassy places: Minamiura, July 21.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

This variety grows abundantly in grassy or herbaceous places, and also under the alder bush.

Sorbus sambucifolia ROEM. Syn. Monogr. Rosifl. III, p. 139; KOIDZ. Consp. Rosac. Jap. p. 46; TAKEDA, l. c. p. 463; KUDO, l. c. p. 119.

Pirus sambucifolia CHAM. et SCHL. in Linnaea II, p. 36; MIYABE, l. c. p. 232; YABE and YENDO, l. c. p. (186).

Nom. Jap. *Takane-nanakamado, Ômiyama-nanakamado*.

Hab. Mixed with the alders, but not so common.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Rubus arcticus L. Sp. Pl. ed. I, p. 494; YABE and YENDO, l. c. p. (185); KOIDZ. Consp. Rosac. Jap. p. 108; KUDO, l. c. p. 120.

Nom. Jap. *Chishima-ichigo*.

Hab. In grassy places: Maruyama, Minamiura, July 4. Minamiura, July 28.

Distr. Shiashkotan, Paramushir, Shumshu, Alaid.

Potentilla fragarioides L. Sp. Pl. ed. I, p. 496; KOIDZ. Consp. Rosac. Jap. p. 181.

var. **flagellaris** LEHM. Rev. Potent. p. 43; MAXIM. in Mém. Biol. IX, p. 159; KOIDZ. l. c. p. 181.

Nom. Jap. *Ko-kijimushiro*.

Hab. Karasawa, Minamiura, July 8.

var. **stolonifera** MAXIM. l. c. p. 160; MIYABE, l. c. p. 230; YABE and YENDO, l. c. p. (185); KOIDZ. l. c. p. 182; TAKEDA, l. c. p. 461; KUDO, l. c. p. 122.

Nom. Jap. *Tsuru-kijimushiro*.

Hab. In grassy places: Sakichizaki, July 8. Minamiura, July 8.

Distr. sp. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Potentilla megalantha TAKEDA, in Kew Bull. (1911), p. 255 and Fl.

Shikotan, p. 462; KOIDZ. Consp. Rosac. Jap. p. 187; KUDO, l. c. p. 122.

Potentilla fragiformis A. GRAY, Bot. Jap. p. 387; MIYABE, l. c. p. 231
MATSUDAIRA, l. c. p. (468); YABE and YENDO, l. c. p. (185).

Nom. Jap. *Chishima-kinbai*.

Hab. On rocky cliffs, common: Sekinezaki, July 6.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Ketoj, Paramushir, Shumshu, Alaid.

Potentilla nivea L. Sp. Pl. ed. 2, p. 715; DC. Prodr. II, p. 751; MAXIM. Prim. Fl. Amur. p. 97; FR. SCHM. Fl. Sachal. p. 40; ASCHERS. et GRAEBN. Syn. Mit.-Europ. Fl. VI, p. 703; KOIDZ. Consp. Rosac. Jap. p. 184.

Nom. Jap. *Urajiro-kinbai*.

Hab. On gravelly slopes: Uomizaki (ca. 400 m.), Aug. 15.

Distr. Shikotan, Alaid.

The leaves of the specimen 3-foliolate and leaflets oblong cuneate, cleft. The leaves of the same species collected in the mountain region of Japan proper 3-foliolate and leaflets oblong, crenate on the margin.

It is distributed between ca. 400 m. and 800 m. alt., situated in the upper part of Uomizaki. The collectors did not find it in any other places of this island.

Geum Fauriei LÉVL. in FEDDE, Repr. VIII, p. 281; MIYABE and MIYAKE, Fl. Saghal. p. 131.

Geum macrophyllum FR. SCHM. Fl. Sachal. p. 126; MIYABE, l. c. p. 230; KOIDZ. Consp. Rosac. Jap. p. 198, (not WILLD.).

Nom. Jap. *Chishima-daikonsô*.

Hab. Under the bushes: Kujiramisaki, Aug. 15. Izumizaki, Aug. 17.

Distr. Shumshu, Alaid.

Geum calthaefolium SM. REES. Cycl. V, p. 13; KOIDZ. Consp. Rosac. Jap. p. 199.

var. *dilatatum* TORR. et GRAY, Fl. Bor. Am. I, p. 425; YABE and YENDO, l. c. p. (185); KOIDZ. l. c. p. 199; TAKEDA, l. c. p. 461; KUDO, l. c. p. 104.

Nom. Jap. *Miyama-daikonsô*.

Hab. In herbaceous places: Uomizaki, Aug. 4.

Distr. Shikotan, Iturup, Shiashkotan, Paramushir, Shumshu, Alaid.

Filipendula kamtschatica MAXIM. in Act. Hort. Petrop. VI, p. 248; MIYABE, l. c. p. 228; KOIDZ. Consp. Rosac. Jap. p. 207; TAKEDA, l. c. p. 460; KUDO, l. c. p. 124.

Spiraea kamtschatica MATSUDAIRA, l. c. p. (468).

Ulmaria kamtschatica YABE and YENDO, l. c. p. (186).

a. **typica** KOIDZ. in Bot. Mag. Tokyo, XXIII, p. 180 and Consp. Rosac. Jap. p. 207.

Nom. Jap. *Oni-shimotsuke*.

Hab. Todozaki, Aug. 5.

b. **pilosa** KOIDZ. in Bot. Mag. Tokyo, XXIII, p. 180 and Consp. Rosac. Jap. l. c. p. 207.

Nom. Jap. *Natsuyukisô*.

Hab. Minamiura, July 10.

c. **glabra** KOIDZ. in Bot. Mag. Tokyo, XXIII, p. 180 and Consp. Rosac. Jap. p. 208.

Nom. Jap. *Natsuyukisô*.

Hab. Karasawa, Minamiura, July 8.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Sanguisorba tenuifolia FISCH. ex LINK. Enum. Hort. Berol. I, p. 144; KOIDZ. Consp. Rosac. Jap. p. 218.

var. **kurilensis** KUDO, l. c. p. 125.

Nom. Jap. *Chishima-waremokô*.

Hab. In grassy places: Ichinowatari, Aug. 2.

Distr. *var.* Paramushir, Shumshu, Alaid.

Rosa rugosa THUNB. Fl. Jap. p. 213; MIYABE, l. c. p. 232; YABE and YENDO, l. c. p. (186); KOIDZ. Consp. Rosac. Jap. p. 222; TAKEDA, l. c. p. 463; KUDO, l. c. p. 125.

Nom. Jap. *Hama-nasu*.

Hab. On sandy beach, very common.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Leguminosæ.

Thermopsis fabacea DC. Prodr. II. p. 99; LEDEB. Fl. Ross. I, p. 511;

A. GRAY, Bot. Jap. p. 385; MIQ. Prol. Fl. Jap. p. 230; MIYABE, l. c. p. 224; MATSUDAIRA, l. c. p. (468); YABE and YENDO, l. c. p. (186); MATSUM. in Bot. Mag. Tokyo, XVI, p. 37; TAKEDA, l. c. p. 457; KUDO, l. c. p. 126.

Nom. Jap. *Sendaihagi*.

Hab. On rocky cliffs: Todozaki, Aug. 5. In herbaceous places: Maruyama, Minamiura, July 4.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Oxytropis Pumilio LEDEB. Fl. Ross. I, p. 589; MIYABE, l. c. p. 224; KUDO, l. c. p. 126.

Astragalus Pumilio PALL. Sp. Astr. p. 67; DC. Prodr. II, p. 306.

Oxytropis japonica MAXIM. var. *sericea* KOIDZ. in Bot. Mag. Tokyo, XXXII, p. 63.

Nom. Jap. *Yezo-oyama-no-yendô*.

Hab. Maruyama, Minamiura, July 4, Karasawa, July 8.

form. *leucantha*

Nom. Jap. *Shirobana-yezo-oyama-no-yendô*.

Hab. In gravelly slopes, rare: Mt. Alaid (ca. 900 m.), July 15.

Distr. *sp.* Paramushir, Shumshu, Alaid.

This species grows on rocky cliffs or dry herbaceous places near the shore, and also occurs on gravelly slopes of the alpine region as far as 1000 m. alt.

Hedysarum obscurum L. Syst. Nat. ed. X; DC. Prodr. II, p. 343; KUDO, l. c. p. 127.

var. **neglectum** TRAUTV. in Bull. Soc. Nat. Mosc. XXXIII, ii, p. 516; YABE and YENDO, l. c. p. (187); TAKEDA, l. c. p. 458; KUDO, l. c. p. 127.

Nom. Jap. *Chishima-genge*.

Hab. On rocky cliffs near the sea-shore: Sakichizaki, July 8.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Lathyrus maritimus BIEGL. Fl. Bost. ed. 2, p. 68; MIYABE, l. c. p. 225; BOISS. in Bull. Herb. Boiss. VI, p. 676; YABE and YENDO, l. c. p. (186); MATSUM. in Bot. Mag. Tokyo, XVI, p. 82; TAKEDA, l. c. p. 459; KUDO, l. c. p. 127.

Nom. Jap. *Hama-yendô*.

Hab. On sandy beaches, very common: Sekinezaki, July 6.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Geraniaceæ.

Geranium erianthum DC. Prodr. I, p. 641; MIYABE, l. c. p. 222; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (187); KNUTH. Geran. in ENGL. Pfl-reich. IV, 129, p. 122; NAKAI, in Bot. Mag. Tokyo, XXIII, p. 101; TAKEDA, l. c. p. 456; KUDO, l. c. p. 128.

Nom. Jap. *Chishima-fûro*, *Ô-fûro*.

Hab. In herbaceous places: Sekinezaki, July 6.

Distr. Kunashiri, Shikotan, Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

Empetraceæ.

Empetrum nigrum L. Spec. Pl. ed. 1, p. 1022; DC. Prodr. XVI, 1, p. 25; LEDEB. Fl. Ross. III, p. 555; MIYABE, l. c. p. 260; MATSUDAIRA, l. c. p. (469); YABE and YENDO, l. c. p. (187); TAKEDA, l. c. p. 485; KUDO, l. c. p. 129.

Nom. Jap. *Gankôran*.

Hab. Maruyama Minamiura, July 4. Karasawa Minamiura, July 8.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Alaid.

Guttiferae.

Hypericum paramushirense KUDO, l. c. p. 130.

Nom. Jap. *Ruesan-otogiri*.

Hab. On herbaceous slopes: Todozaki, Aug. 5. Minamiura, July 10.

Distr. Paramushir, Shumshu, Alaid.

Violaceæ.

Viola Selkirkii PURSH. apud GOLDIE in Edinbg. Phil. Journ. (1822), p. 319; MIYABE, l. c. p. 219; NAKAI, in Bot. Mag. Tokyo, XXX, p. 287; BECKER, in Bot. Centr. Beihft. XXXIV, 2, p. 412; TAKEDA, l. c. p. 453; KUDO, l. c. p. 130.

form. **albiflora**

Nom. Jap. *Shirobana-miyamasumire*.

Hab. Under the alder bushes, rare: Mt. Alaid, July 15.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Paramushir, Alaid.

Viola crassa MAKINO, in Bot. Mag. Tokyo, XIX, p. 87; NAKAI, in Bot. Mag. Tokyo, XXXVI, p. (89).

Nom. Jap. *Takane-sumire*.

Hab. Maruyama, Minamiura, July 4.

Distr. Iturup, Urup, Alaid.

Viola biflora L. Sp. Pl. ed. I. p. 396; MATSUDAIRA, l. c. p. (468); YABE and YENDO, l. c. p. (187); BCKR. in Bot. Centr. Beihft. XXXVI, 2, p. 39; NAKAI, in Bot. Mag. Tokyo, XXXVI, p. (89)*; KUDO, l. c. p. 132.

Nom. Jap. *Kibana-no-komanotsune*.

Hab. Uomizaki, Aug. 4. Todozaki, Aug. 5.

Distr. Iturup, Urup, Paramushir, Shumshu, Alaid.

Oenotheraceæ.

Epilobium angustifolium L. Sp. Pl. ed. I, p. 347; MIYABE, l. c. p. 235; YABE and YENDO, l. c. p. (188); NAKAI, in Bot. Mag. Tokyo, XXII, p. 75; KUDO, l. c. p. 133.

Nom. Jap. *Yanagi-ran*.

Hab. In grassy places: Namikawa, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Epilobium lactiflorum HAUSSKN. Monogr. Epilob. p. 158; MIYABE, l. c. p. 235; KUDO, l. c. p. 134.

Nom. Jap. *Kita-akabana*.

Hab. Karasawa, Minamiura, July 23.

Distr. Paramushir, Alaid.

Epilobium Behringianum HAUSSKN. Monogr. Epilob. p. 277; MIYABE, l. c. p. 235; KUDO, l. c. p. 135.

Nom. Jap. *Tarao-akabana*.

Hab. On herbaceous hill-sides: Namikawa, July 23. Karasawa, Minami-ura, July 8.

Distr. Urup, Paramushir, Alaid.

Epilobium Bongardi HAUSSKN. Monogr. Epilob. p. 278; MIYABE, l. c. p. 235; KUDO, l. c. p. 135.

Nom. Jap. *Ruesan-akabana*.

Hab. Karasawa, Kitaura, July 23.

Distr. Urup, Paramushir, Alaid.

Epilobium Hornemanni RCHB. Icon. Crit. II, p. 73; HAUSSKN. Monogr. Epilob. p. 174; KUDO, l. c. p. 135.

Nom. Jap. *Miyama-akabana*, *Rishiri-akabana*.

Hab. Namikawa, July 23.

Distr. Paramushir, Alaid.

Circaea alpina L. Spec. Pl. ed. 1, p. 9; MIYABE, l. c. p. 235; YABE and YENDO, l. c. p. (189); TAKEDA, l. c. p. 467; KUDO, l. c. p. 136.

Nom. Jap. *Miyama-tanitate*.

Hab. Under the alder bushes: Minamiura, July 11. Ichinowatari, Aug. 2.

Distr. Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Umbelliferae.

Anthriscus sylvestris HOFFM. Umbell. pp. 40, 46; MIYABE, l. c. p. 236; YABE, Rev. Umbell. Jap. p. 22; YABE and YENDO, l. c. p. (189); KUDO, l. c. p. 136.

Nom. Jap. *Shaku*, *Ko-jaku*, *Yama-ninjin*.

Hab. Under the alder bushes: Minamiura, July 11.

Distr. Kunashiri, Iturup, Urup, Paramushir, Shumshu, Alaid.

Cnidium ajanense DRUDE, in ENGL. u. PR. Nat. Pfl.-fam. III, viii, p. 210; YABE, Rev. Umbell. Jap. p. 62; TAKEDA, Fl. Shikotan, p. 468 and in Bot. Mag. Tokyo, XXXII, p. 202; KUDO, l. c. p. 137.

Selinum Benthami YABE and YENDO, l. c. p. (189), (not WATS.).

Cnidium Tilingia TAKEDA, in Bot. Mag. Tokyo, XX, p. 305.

Nom. Jap. *Chishima-ninjin*.

Hab. Uomizaki, Aug. 15.

Distr. Shikotan, Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Ligusticum scoticum L. Sp. Pl. ed. 1, p. 250; MIYABE, l. c. p. 236; YABE, Rev. Umbell. Jap. p. 64; YABE and YENDO, l. c. p. (189); TAKEDA, Fl. Shikotan, p. 468; KUDO, l. c. p. 138.

Nom. Jap. *Maruba-tôki*.

Hab. On rocky cliffs along the sea-shore: Sekinezaki, July 6. In grassy places near the beach: Minamiura, Aug. 10.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Coelopleurum Gmelini LEDEB. Fl. Ross. II, p. 361; MIYABE, l. c. p. 236; YABE, Rev. Umbell. Jap. p. 69; YABE and YENDO, l. c. p. (189); TAKEDA, l. c. p. 469; KUDO, l. c. p. 138.

Nom. Jap. *Yezo-no-shishiudo*, *Yezo-no-hanaudo*.

Hab. In grassy places near the beach, common: Minamiura, July 4 and 18.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Heracleum lanatum MICHX. Fl. Bor. Am. I, p. 166; MIYABE, l. c. p. 236; YABE, Rev. Umbell. Jap. p. 101; TAKEDA, l. c. p. 469; KUDO, l. c. p. 139.

Nom. Jap. *Hana-udo*.

Hab. Under the alder bushes: Uomizaki, Aug. 4.

Distr. Shikotan, Iturup, Urup, Paramushir, Alaid.

Cornaceae.

Cornus suecica L. Sp. Pl. ed. 1, p. 118; MIYABE, l. c. p. 237; MATSU-DAIRA, l. c. p. (467); WANGERIN, Cornac. in ENGL. Pfl.-reich. IV, 229, p. 81; YABE and YENDO, l. c. p. (189); TAKEDA, l. c. p. 469; KUDO, l. c. p. 139.

Arctocrania suecica NAKAI, in Bot. Mag. Tokyo, XXIII, p. 39.

Nom. Jap. *Yezo-gozentachibana*.

Hab. In grassy places: Maruyama, Minamiura, July 4. Ichinowatari, Aug. 2.

Distr. Kunashiri, Shikotan, Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

Metachlamydeæ

Ericaceæ.

Therorhodium camtschaticum SMALL, in N. Am. Fl. XXIV, pt. I, p. 45; NAKAI, Tr. and Shr. Jap. Vol. I, ed. I, p. 29.

Rhododendron camtschaticum PALL. Fl. Ross. I, p. 48; MAXIM. Rhod. As. Or. p. 47; MIYABE, l. c. p. 274; YABE and YENDO, l. c. p. (190); TAKEDA, l. c. p. 478; KOMATSU, in Bot. Mag. Tokyo, XXXII, p. (7); KUDO, l. c. p. 142.

Nom. Jap. *Yezo-tsutsuji*.

Hab. Kitaura, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

It occurs on rocky cliffs near the sea, but abundantly in the alpine region. The fine carpets, dominated by this species, were found near Kitaura and Uomizaki.

Rhododendron chrysanthum PALL. Itin. III, p. 729; MIYABE, l. c. p. 247; MATSUDAIRA, l. c. p. (467); YABE and YENDO, l. c. p. (190); TAKEDA, l. c. p. 478; KUDO, l. c. p. 197.

Nom. Jap. *Kibana-shakunagi*.

Hab. Minamiura.

Distr. Kunashiri, Shikotan, Iturup, Urup, Cheruboi, Shiashkotan, Paramushir, Shumshu, Alaid.

Phyllodoce aleutica A. HELLER, in Muhl. I, p. 1; NAKAI, Tr. and Shr. Vol. I, ed. 3, p. 29.

Phyllodoce Pallasiana D. DON, in Edibg. New Phil. Journ. XVII, p. 159; YABE and YENDO, l. c. p. (191).

Phyllodoce aleutica MAKINO, in Bot. Mag. Tokyo, XIX, p. 134; KUDO, l. c. p. 143.

Nom. Jap. *Aonotsugazakura*.

Hab. On gravelly slopes: Kitaura, (ca 600 m.) July 23.

Distr. Kunashiri, Iturup, Urup, Paramushir, Shumshu, Alaid.

Cassiope lycopodioides DON, in Edinbg. New Phil. Journ. XVII, p. 157;

MIYABE, l. c. p. 247; MATSUDAIRA, l. c. p. (467); YABE and YENDO, l. c. p. (191); KUDO, l. c. p. 144; NAKAI, Tr. and Shr. I, ed. I, p. 119.

Nom. Jap. *Iwahige*.

Hab. On gravelly slope: Kitaura, July 23.

Distr. Kunashiri, Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

Vaccinium Vitis-Idaea L. Sp. Pl. ed. I, p. 351; MIYABE, l. c. p. 246; MATSUDAIRA, l. c. p. (467); YABE and YENDO, l. c. p. (190); TAKEDA, l. c. p. 477; KUDO, l. c. p. 146; NAKAI, Tr. and Shr. Jap. I, ed. I, p. 175.

Nom. Jap. *Kokemomo*.

Hab. In dry places: Maruyama, Minamiura, July 4. Minamiura, July 17.

Distr. Kunashiri, Shikotan, Iturup, Shimushir, Matua, Paramushir, Shumshu, Alaid.

Vaccinium uliginosum L. Sp. Pl. ed. I, p. 350; MIYABE, l. c. p. 246; YABE and YENDO, l. c. p. (191); TAKEDA, l. c. p. 477; KUDO, l. c. p. 147; NAKAI, Tr. and Shr. Jap. I, ed. I, p. 188.

Nom. Jap. *Kuromame-no-ki*.

Hab. Sekinezaki, July 11.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Vaccinium Chamissonis BONG. Veg. Sitch. p. 151; LEDEB. Fl. Ross. II, p. 903; NAKAI, in Bot. Mag. Tokyo, XL, p. 482.

Vaccinium ovalifolium MIYABE et MIYAKE, Fl. Saghal. p. 301; KUDO, l. c. p. 147.

Nom. Jap. *Yezo-kurousugo*.

Hab. Minamiura, July 17.

Distr. Paramushir, Alaid.

Primulaceae.

Primula cuneifolia LEDEB. in Mém. Ac. St. Pétesb. V, p. 522; PAX u. KNUTH, in ENGL. Pfl.-reich. IV, 237, p. 106.

var. **typica** MAKINO, in Bot. Mag. Tokyo, XVI, p. 140; TAKEDA, Notes R. B. G. Edinbg. VIII, 37, p. 90; KUDO, l. c. p. 148.

Primula cuneifolia LEDEB. l. c.; MIYABE, l. c. p. 249; PAX, in ENGL. Bot.

Jahrb. X, p. 211; MAKINO, in Bot. Mag. Tokyo, XIII, p. (83); PAX u. KNUTH, Primul. in ENGL. Pfl.-reich. IV, 237, p. 112; YABE and YENDO, l. c. p. (191).

Nom. Jap. *Yezo-kozakura*.

Hab. In wet places: Uomizaki, Aug. 4.

Distr. Iturup, Urup, Shimushir, Paramushir, Shumshu, Alaid.

Trientalis europaea L. Sp. Pl. ed. 1, p. 344; MIYABE, l. c. p. 250; PAX u. KNUTH, in ENGL. Pfl.-reich. IV, 237, p. 313.

var. **arctica** LEDEB. Fl. Ross. III, p. 25; TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 314 and Fl. Shikotan, p. 478; KUDO, l. c. p. 149.

Nom. Jap. *Ko-tsumatorisô*.

Hab. In grassy places: Sekinezaki, July 6. Minamiura, July 4.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Shiashkotan, Paramushir, Shumshu, Alaid.

Gentianaceæ.

Gentiana auriculata PALL. Fl. Ross. II, p. 102; DC. Prodr. IX, p. 97; HERDER, Pl. Radd. Monop. IV, 1, p. 149; MIYABE, l. c. p. 251; YABE and YENDO, l. c. p. (192); KUDO, l. c. p. 150.

Nom. Jap. *Chishima-rindô*.

Hab. In grassy places; Todozaki, Aug. 5. Minamiura, Aug. 10.

Distr. Iturup, Paramushir, Shumshu, Alaid.

Swertia tetrapetala PALL. Fl. Ross. II, p. 99; MIYABE, l. c. p. 251; YABE and YENDO, l. c. p. (192); TAKEDA, Fl. Shikotan, p. 480; KUDO, l. c. p. 150.

Stellaria cyanea TURCZ. in Bull. Mosc. (1840), p. 167; DC. Prodr. IX, p. 123; LEDEB. Fl. Ross. III, p. 73.

Nom. Jap. *Chishima-semburi*.

Hab. In herbaceous places: Minamiura, July 28. Uomizaki, Aug. 4.

Distr. Kunashiri, Iturup, Paramushir, Shumshu, Alaid.

Halenia sibirica BORKH. in ROEMER, Archiv. I, p. 25; YABE and YENDO, l. c. p. (192); KUDO, l. c. p. 151.

Nom. Jap. *Hanaikari*.

Hab. In grassy places: Minamiura, Aug. 19.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Boraginaceæ.

Mertensia maritima G. DON, Gen. Syst. IV, p. 320; LEDEB. Fl. Ross. III, p. 132.

subsp. **asiatica** TAKEDA, in Journ. Bot. XLIX, p. 222 and Fl. Shikotan, p. 480; KUDO, l. c. p. 152.

Mertensia asiatica MACBRIDE, in Contrb. GRAY Herb. n. s. XLVIII, p. 53; NAKAI, in Bot. Mag. Tokyo, XXXVIII, p. (154).

Mertensia maritima MAXIM. in Mém. Biol. VIII, p. 543; MIYABE, l. c. p. 252; MATSUDAIRA, l. c. p. (467); YABE and YENDO, l. c. p. (192), (not G. DON).

Nom. Jap. *Hama-benkeisô*.

Hab. On sandy beaches, very common: Sekinezaki, July 6. Minamiura, July 17.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Scrophulariaceæ.

Pentstemon frutescens LAMB. in Trans. Linn. Soc. X, p. 259; KUDO, l. c. p. 154.

Nom. Jap. *Tarumaisô*.

Hab. On gravelly slopes: Mt. Alaid, July, 23. Dry places: Minamiura, July 8. Kitaura, July 23. Uomizaki, Aug. 4.

Distr. Kunashiri, Iturup, Paramushir, Alaid.

This species occurs commonly on gravelly slopes from 700 m. to about 1000 m. in altitude, showing luxuriant growth near 800 m. alt. and sometimes it grows on disintegrating slopes or sandy valleys at the altitude of 100-200 m. near the shore.

Veronica Stelleri PALL. ex LINK, Jahrb. i, III, p. 40; LEDEB. Fl. Ross. III, p. 247; MAXIM. Mém. Biol. XII, p. 501; HERDER, Pl. Radd. Monop. IV, 2, p. 34; MIYABE, l. c. p. 254; YABE and YENDO, l. c. p. (194); FURUMI, in Bot. Mag. Tokyo, XXX, p. 124; KUDO, l. c. p. 154.

Nom. Jap. *Miyama-kuwagata*.

Hab. In grassy places, common: Minamiura, July 11.

Distr. Iturup, Paramushir, Shumshu, Alaid.

Veronica aphylla L. Spec. Pl. ed. 1, p. 11; DC. Prodr. X, p. 476.

var. **grandiflora** BENTH. in DC. Prodr. X, p. 476; LEDEB. Fl. Ross. III, p. 245; HERDER, Pl. Radd. Monop. IV, 2, p. 32; MIYABE, l. c. p. 253; FURUMI, l. c. p. 126; KUDO, l. c. p. 155.

Veronica kamtschatica L. f. Suppl. p. 83; YABE and YENDO, l. c. p. (194).

Nom. Jap. *Shumushu-kuwagata*.

Hab. On gravelly slopes of the alpine region (ca. 900 m.), not common: Uomizaki, Aug. 15.

Distr. Paramushir, Shumshu, Alaid.

Lagotis glauca GAERTN. in Nov. Comm. Petrop. XIV, p. 533; FURUMI, in Bot. Mag. Tokyo, XXX, p. 126; KUDO, l. c. p. 155.

Nom. Jap. *Urrup-sô*.

Hab. On gravelly slopes: Karasawa, Minamiura, July 8.

Distr. Iturup, Urup, Shimushir, Paramushir, Alaid.

It grows in a larger number about 700 m. in altitude, and it is also often found in sandy places at the lower situation along the valley.

Euphrassia mollis WETTST. Monogr. Euphr. p. 141; TAKEDA, in Bot. Mag. Tokyo, XXIV, p. 157 and Fl. Shikotan, p. 481; KUDO, l. c. p. 155.

Nom. Jap. *Yezo-no-kogomegusa*.

Hab. In grassy places: Minamiura, Aug. 10.

Distr. Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Pedicularis Chamissonis STEV. in Mém. Soc. Nat. Mosc. VI, p. 20; MAXIM. in Mém. Biol. X, p. 90.

var. **Maximowiczii** KUDO, l. c. p. 156.

Pedicularis japonica MIQ. var. *Maximowiczii* NAKAI, in Bot. Mag. Tokyo, XXII, p. (99); FURUMI, in Bot. Mag. Tokyo, XXX, p. 132.

Pedicularis Chamissonis MAXIM. l. c. p. 90; MIYABE, l. c. p. 254; MATSU-DAIRA, l. c. p. (467); YABE and YENDO, l. c. p. (193), (not STEV.).

Nom. Jap. *Yezo-no-yotsubashiogama*.

Hab. In grassy or herbaceous places, common: Maruyama, Minamiura,

July 4. Sekinezaki, July 28. Ichinowatari, Aug. 2.

Distr. Kunashiri, Shikotan, Iturup, Urup, Ushishir, Rashua, Paramushir, Shumshu, Alaid.

Pedicularis resupinata L. Sp. Pl. ed. 1, p. 608; MAXIM. in Mém. Biol. X, p. 106 and XII, p. 831; MIYABE, l. c. p. 254; FORB. et HEMSL. Ind. Sin. II, p. 214; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (193); NAKAI, in Bot. Mag. Tokyo, XXIII, p. (100); TAKEDA, l. c. p. 481; FURUMI, in Bot. Mag. Tokyo, XXX, p. 133; KUDO, l. c. p. 157.

Nom. Jap. *Shiogamagiku*.

Hab. In grassy places, very common: Ichinowatari, Aug. 2.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Pedicularis venusta SCHANG. ex BUNGE, in Bull. Phys. Acad. Petersb. I, no. 24; LEDEB. Fl. Ross. III, p. 293.

var. **Schmidtii** ITO, Memorial work, etc. of KEISUKE ITÔ, i, p. 75; TAKE-DA, l. c. p. 481.

Pedicularis venusta SCHANG. var., FR. SCHM. Fl. Sachal. p. 163.

Pedicularis venusta SCHANG. var. *Schmidtii* NAKAI, in Bot. Mag. Tokyo, XXIII, p. (101).

Nom. Jap. *Nemuro-shiogama*.

Hab. In herbaceous places, not common: Gotôzan, July 23.

Distr. Kunashiri, Shikotan, Iturup, Urup, Alaid.

Lentibulariaceæ.

Pinguicula vulgaris L. Spec. Pl. ed. 1, p. 17; LEDEB. Fl. Ross. III, p. 2.

var. **macroceras** HERDER, Pl. Radd. Monop. IV, 1, p. 98; KUDO, l. c. p. 159.

Pinguicula vulgaris MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (193), (not LINN.).

Nom. Jap. *Mushitori-sumire*.

Hab. Suribachiyama, Minamiura, Aug. 19.

Distr. Iturup, Urup, Paramushir, Shumshu, Alaid.

Plantaginaceæ.

Plantago kamtschatica LINK. Enum. Pl. Hort. Berol. I, p. 120; MIYABE, l. c. p. 256; TAKEDA, l. c. p. 482.

Nom. Jap. *Yezo-ôbako*.

Hab. In sandy places, near the beach: Minamiura, July 18.

Distr. Kunashiri, Shikotan, Iturup, Urup, Alaid.

Rubiaceæ.

Galium boreale L. Sp. Pl. ed. 1, p. 105; KUDO, l. c. p. 160.

var. **genuium** MAXIM. Prim. Fl. Amur. p. 141.

Nom. Jap. *Hosoba-kinutasô*.

Hab. In grassy places: Uomizaki, Aug. 4.

Distr. *sp.* Kunashiri, Shikotan, Paramushir, Shumshu, Alaid.

Caprifoliaceæ.

Lonicera coerulea L. Sp. Pl. ed. 1, p. 147; KUDO, l. c. p. 161.

var. **altaica** SWEET. Hort. Brit. ed. 2, p. 258; REDH. Syn. Lonic. p. 71; C. K. SCHN. Ill. Handb. Laubholz. II, p. 694; TAKEDA, l. c. p. 470; KUDO, l. c. p. 161; NAKAI, Tr. and Shr. Jap. I, ed. 1, p. 479.

Nom. Jap. *Kuromi-no-uguisukagura*.

Hab. Maruyama, Minamiura, July 4.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Shiashkotan, Paramushir, Shumshu, Alaid.

Campanulaceæ.

Campanula dasyantha BIEB. Fl. Taur. Cauc. III, p. 147; YABE and YENDO, l. c. p. (195); KUDO, l. c. p. 162.

Campanula pilosa PALL. var. *dasyantha* HERDER, Pl. Radd. Monop. IV, 1, p. 6.

Nom. Jap. *Chishima-gikyô*.

Hab. In rocky places: Kitaura, July 26.

Distr. Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

It grows together with *Campanula lasiocarpa*. In the upper part of Uomizaki (ca. 800-900 m. alt.), the collectors met with a beautiful carpet formed

mainly of this species accompanied with *Therorhodon kamtschaticum*.

Campanula lasiocarpa CHAM. in Linnaea IV, p. 39; YABE and YENDO, l. c. p. (195); KUDO, l. c. p. 163.

Nom. Jap. *Iwa-gikyô*.

Hab. On gravelly slopes: Karasawa, Minamiura, July 8 and 26. Todozaki, Aug. 5.

Distr. Kunashiri, Iturup, Paramushir, Shumshu, Alaid.

This species grows on rocks or rocky cliffs near the sea-shore and ascends to the altitude of 1000 m., especially abundant at the altitude of between 700–800 m.

Compositæ.

Solidago Virgaurea LINN. Sp. Pl. ed. 1, p. 880; DC. Prodr. V, p. 338; MIYABE, l. c. p. 240; YABE and YENDO, l. c. p. (196); TAKEDA, l. c. p. 472; KUDO, l. c. p. 163.

Nom. Jap. *Akino-kirinsô*.

Hab. In grassy places: Todozaki, Aug. 5.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Aster arcticus EASTWOOD, in Bot. Gaz. XXXIII, p. 293.

Nom. Jap. *Araitto-nogiku*.

Hab. Mt. Alaid, July 15.

var. **angustifolius**

Plant low, about 6 cm. high. Lower leaves oblong lanceolate, 2.5–3 cm. long, 6–9 mm. broad; upper ones lanceolate or linear lanceolate; mostly entire. Head 2 cm. broad.

Nom. Jap. *Hosoba-araitto-nogiku*.

Hab. Kitaura, July 26.

Distr. sp. Alaid.

Erigeron kamtschaticum DC. Prodr. V, p. 290.

Erigeron acre L. var. *kamtschaticum* HERDER, Pl. Radd. Monop. III, 2, p. 24; MIYABE and MIYAKE, Fl. Saghal. p. 240.

var. **hirsutum** FR. SCHM. Fl. Sachal. p. 147; TAKEDA, l. c. p. 472; KUDO, l. c. p. 164.

Nom. Jap. *Yezo-mukashi-yomogi*.

Hab. In grassy places: Kitaura, July 23. Minamiura, Aug. 3.

Distr. Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Antennaria dioica GAERTN. Fruct. II, p. 410; YABE and YENDO, l. c. p. (197); KUDO, l. c. p. 164.

Nom. Jap. *Yezo-no-chichikogusa*.

Hab. In dry places: Maruyama, Minamiura, July 4. Karasawa, Minamiura, July 8.

Distr. Iturup, Paramushir, Shumshu, Alaid.

Anaphalis margaritacea BENTH. et HOOK. f. Gen. Pl. II, p. 303; MIYABE, l. c. p. 241; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (196); TAKEDA, l. c. p. 473; KUDO, l. c. p. 165.

Nom. Jap. *Yama-hahako*.

Hab. Ichinowatari, July 2.

form. **latifolia** KUDO, l. c. p. 165.

Nom. Jap. *Hiroha-no-yamahahako*.

Hab. Izumizaki, Aug. 17.

Distr. form. Kunashiri, Paramushir, Alaid; sp. Kunashiri, Shikotan, Iturup, Urup, Paramushir, shumshu.

Achillea sibirica LEDEB. in Ind Sem. Hort. Dorpart, (1811); MIYABE, l. c. p. 241; YABE and YENDO, l. c. p. (197); TAKEDA, l. c. p. 473; KUDO, l. c. p. 165.

Nom. Jap. *Nokogirisô*.

Hab. In grassy places, very common: Ichinowatari, Aug. 2.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Achillea Ptarmica L. Sp. Pl. ed. 1, p. 898; KUDO, l. c. p. 166.

var. **speciosa** HERDER, Pl. Radd. Monop. III, 2, p. 39; MIYABE, l. c. p. 241; YABE and YENDO, l. c. p. (197); TAKEDA, l. c. p. 473; KUDO, l. c. p. 166.

Nom. Jap. *Yezo-nokogirisô*.

Hab. In grassy places, common: Kitaura, July 22. Uomizaki, Aug. 4.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Chrysanthemum arcticum L. Spec. Pl. ed. 1, p. 889; MIYABE, l. c. p. 242; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (196); MAEKAWA, in Trans. Sapporo Nat. Hist. Soc. VIII, p. 5; KUDO, l. c. p. 167.

Nom. Jap. *Chishima-kohamagiku*.

Hab. Sekinezaki, July 6.

var. **yezoense** MAEKAWA, l. c. p. 6.

Nom. Jap. *Ôba-chishima-kohamagiku*.

Hab. Gotôzan, July 22.

Distr. sp. Kunashiri, Iturup, Urup, Rashua, Paramushir, Shumshu, Alaid.

Chrysanthemum integrifolium RICHARD. App. Frankl. Journ. ed. 2, p. 33; A. GRAY, Syn. Fl. N. Am. I, 2, p. 365.

Leucanthemum integrifolium DC. Prodr. VI, p. 45; TORRE et GRAY, Fl. Bor. Am. II, p. 412; LEDEB. Fl. Ross. II, p. 450; HERDER, Pl. Radd. Monop. III, 2, p. 48.

Nom. Jap. *Araito-kohamagiku*.

Hab. Gotôzan, July 22.

Distr. Alaid.

Artemisia vulgaris L. Sp. Pl. ed. 1, p. 848; KUDO, l. c. p. 168.

var. **kamtschatica** BESS. Tent. Abrot. p. 54; NAKAI, in Bot. Mag. Tokyo, XXVI, p. 104; KUDO, l. c. p. 168.

Artemisia vulgaris L. var. *communis* LEDEB. Fl. Ross. II, p. 585; TAKEDA, l. c. p. 474.

Nom. Jap. *Yezo-yomogi*.

Hab. In grassy places: Minamiura, Aug. 10.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shimushir, Paramushir, Alaid.

Artemisia Stelleriana BESS. in Nouv. Mém. Soc. Nat. Mosc. III, p. 79; MIYABE, l. c. p. 243; YABE and YENDO, l. c. p. (196); TAKEDA, l. c. p. 473; NAKAI, in Bot. Mag. Tokyo, XXVI, p. 100; KUDO, l. c. p. 169.

Nom. Jap. *Shiro-yomogi*.

Hab. On sandy beaches, common: Sekinezaki, July 6. Sakichizaki, July

8. Minamiura, Aug. 10.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Artemisia leontopodioides FISCH. Her. Bess. Abr. n. 43; DC. Prodr. VI, p. 116; LEDEB. Fl. Ross. II, p. 578.

Artemisia curilensis SPRENG. Syst. Veg. III, p. 489 (not BESS. nor DEC.).

Nom. Jap. *Chishima-hahakoyomogi*.

Hab. Karasawa, Minamiura, July 8.

Distr. Alaid.

Artemisia borealis PALL. Fl. Ross. III, App. p. 735; DC. Prodr. VI, p. 98; LEDEB. Fl. Ross. II, p. 567; TORR. et GRAY, Fl. N. Am. II, p. 417; GRAY, Syn. Fl. N. Am. I, 2, p. 368.

Nom. Jap. *Araito-yomogi*.

Hab. Mt. Alaid, July 8.

Distr. Alaid.

Senecio palmatus PALL. Reise. III, p. 321; MIYABE, l. c. p. 244; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (196); TAKEDA, l. c. p. 475; KUDO, l. c. p. 171.

Nom. Jap. *Hangonsô*.

Hab. In herbaceous places: Minamiura, Aug. 10.

var. **cannabifolius** KUDO, Contr. N. Saghal. p. 60.

Nom. Jap. *Hosoba-no-hangonsô*.

Hab. In grassy places: Karasawa, Minamiura, July 8.

Distr. *sp.* Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

The species occurs commonly in herbaceous places and also under the alder bushes.

Senecio Pseudo-Arnica LESS. in Linnaea VI, p. 240; MIYABE, l. c. p. 244; YABE and YENDO, l. c. p. (197); TAKEDA, l. c. p. 474; KUDO, l. c. p. 171.

Senecio maritimus KOIDZ. Pl. Sachal. p. 122; MATSUM. Ind. Pl. Jap. II, ii, p. 665, (not L. f.).

Nom. Jap. *Yezo-oguruma*.

Hab. On sandy beaches, common: Sekinezaki, July 6. Ichinowatari, Aug. 12.

Distr. Shikotan, Iturup, Urup, Shimushir, Shiashkotan, Paramushir, Shumshu, Alaid.

Cirsium kamtschaticum LEDEB. in DC. Prodr. VI, p. 644; YABE and YENDO, l. c. p. (198); NAKAI, in Bot. Mag. Tokyo, XXVI, p. 630; KUDO, l. c. p. 172.

Cnicus kamtschaticus MAXIM. in Mém. Biol. IX, p. 310; MIYABE, l. c. p. 244; MATSUDAIRA, l. c. p. (466).

Cnicus kamtschaticus MAXIM. var. *genuinus* MAXIM. l. c. p. 310; TAKEDA, l. c. p. 475.

Nom. Jap. *Chishima-azami*.

Hab. In grassy or herbaceous places, common: Minamiura, Aug. 10.

Distr. Kunashiri, Shikotan, Iturup, Paramushir, Shumshu, Alaid.

Saussurea Riederi HERDER, Pl. Radd. Monop. III, iii. p. 35; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (197); TAKEDA, l. c. p. 476; KUDO, l. c. p. 173.

Nom. Jap. *Kita-azami*.

Hab. In grassy or herbaceous places, common: Sekinezaki, July 6. Minamiura, Aug. 10.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Picris japonica THUNB. Fl. Jap. p. 299; MIYABE, l. c. p. 245; MATSUDAIRA, l. c. p. (466); KUDO, l. c. p. 173.

Picris hieracioides L. var. *japonica* RGL. Pl. Radd. Monop. III, iv, p. 25; YABE and YENDO, l. c. p. (196); TAKEDA, l. c. p. 476.

Nom. Jap. *Kôzorina*.

Hab. In grassy places: Karasawa, Minamiura, July 8. Minamiura, July 18 and Aug. 3.

Distr. Kunashiri, Shikotan, Iturup, Urup, Paramushir, Shumshu, Alaid.

Lactuca repens BENTH. et HOOK. f. Gen. Pl. II, p. 526; MAXIM. in Mém. Biol. IX, p. 364; MIYABE, l. c. p. 245; MATSUDAIRA, l. c. p. (466); YABE and YENDO, l. c. p. (197); TAKEDA, l. c. p. 476.

Nabals repens LEDEB. Fl. Ross. II, p. 840.

Chorisis repens DC. Prodr. VIII, p. 178.

Nom. Jap. *Hama-nigana*.

Hab. On sandy beaches: Sekinezaki, Aug. 19.

Distr. Kunashiri, Shikotan, Iturup, Urup, Shumshû, Alaid.

Taraxacum latisquumemum DAHLST. in Ark. Bot. Svensk. XX, A. no.

I, p. 10.

Nom. Jap. *Araitō-tampopo*.

Hab. Sakichizaki, July 8.

Distr. Alaid.

Explanation of Plates V and VI.**PLATE V.**

- Fig. 1. A sea-cliff and marine-terrace of the eastern coast, Alaid Isl.
Fig. 2. A view of the bush of *Alnus Maximowiczii* near the shore, Minamiura.
Fig. 3. The higher limit of the bush of *Alnus Maximowiczii*, Mt. Alaid.
Fig. 4. The alder bush, at Maruyama, Minamiura.

PLATE VI.

- Fig. 5. An alpine meadow, Mt. Alaid.
Fig. 6. An alpine meadow, Mt. Alaid.
Fig. 7. *Artemisia leontopodioides*, Mt. Alaid.
Fig. 8. *Saxifraga Merkkii*, var. *typica*, the upper part of Uomizaki.



Fig. 1.

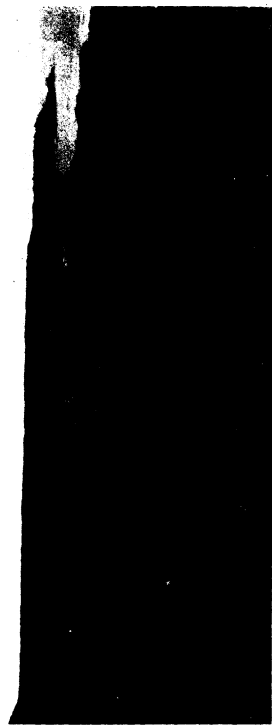


Fig. 2.



Fig. 3.



Fig. 4

Tutewaki Photo.



Fig. 5.



Fig. 6.



Fig. 7.



Fig. 8

Tatewaki Photo.