

## Uredinales found in the Daisetsuzan National Park Hokkaido, Japan\*).

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### Introduction.

On August 3, 1925, Naohide Hiratsuka, the senior writer climbed Mt. Kuro-dake, a eastern peak of the Daisetsuzan Mountain Range from Sôunkyô (Sôunbetsu), and spent several days in the shed near the top for study of the mycological flora of the Daisetsuzan Range. During his excursion, he collected many specimens of rust fungi, including many interesting species. It seems to be the first collection of the rust fungi from the Daisetsuzan National Park.

The first account of rust fungi from this National Park was made by the senior writer in his paper, entitled, „On two species of *Coleosporium* parasitic on the Japanese Compositae.“ in 1927. He reported a species of *Coleosporium*, *Coleosporium saussureae* Thümen on *Pinus pumila* Rgl. (0,I) and *Saussurea riederi* Herd. (II, III), based upon specimens which were collected by himself on the eastern slope of the alpine meadow near the summit of Mt. Kuro-dake. Since that time, there are 18 genera and 72 species of rust fungi which have been recorded by Ito & Homma (23), Ito & Murayama (24), Kamei (25—27) and the senior writer (2—22) from this National Park.

The materials described in the present work are, besides a number of collections made by Kingo Miyabe, Seiya Ito, Senji Kamei, Yoshio Tokunaga, Mitsuo Okamoto and the senior writer (1925—33), those made by the writers in October, 1957 and July of the next year, and by the junior writer in October of the same year. The number of specimens totals more than four hundred, amongst which are included 121 species. The following table shows the number of species, by genera, heretofore known from the Daisetsuzan National Park.

As shown in the table, there are 21 genera and 121 species including 5 species of the two form-genera, *Aecidium* and *Uredo*, which were found in the Daisetsuzan National Park.

\* Contributions from Laboratories of Phytopathology & Mycology, Faculty of Agriculture, Tokyo University of Education. No. 38.

The specimens studied are all kept in the Hiratsuka Herbarium, Tokyo, Japan.

The writers wish to acknowledge their indebtedness to Prof. Daiki Murayama of Hokkaido University for his kind assistance and many valuable suggestions.

Table 1. Number of species of rust fungi found in the Daisetsuzan National Park, Hokkaido.

Families	Genera	Number of species		
		Previously reported	Present additions	Total
Melampsoraceae	<i>Uredinopsis</i>	5	1	6
	<i>Milesina</i>	1	2	3
	<i>Hyalopsora</i>	2	—	2
	<i>Melampsoridium</i>	3	—	3
	<i>Melampsorella</i>	1	—	1
	<i>Pucciniastrum</i>	5	1	6
	<i>Thekopsora</i>	6	—	6
	<i>Calyptospora</i>	1	—	1
	<i>Melampsora</i>	3	1	4
	<i>Chnoospora</i>	1	—	1
	<i>Chrysoomyxa</i>	9	—	9
	<i>Cronartium</i>	1	—	1
	<i>Coleosporium</i>	3	3	6
<i>Pucciniosteles</i>	—	1	1	
Pucciniaceae	<i>Phragmidium</i>	8	—	8
	<i>Triphragmium</i>	—	1	1
	<i>Xenodochus</i>	1	—	1
	<i>Uromyces</i>	5	5	10
	<i>Puccinia</i>	24	22	46
Uredinales	<i>Aecidium</i>	—	2	2
Imperfecti	<i>Uredo</i>	2	1	3
Total		81	40	121

Fam. *Melampsoraceae*.

1. *Uredinopsis adianti* Komarov in Jaczewski, Komarov et Tranzschel, Fung. Ross. exsicc. no. 278, 1899. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 78, 1936).

Hab. II, III. on *Adiantum pedatum* L. (*Kujyaku-shida*). Sôunkyô (Sôunbetsu) (Sept. 9, 1926, N. H.).

2. *Uredinopsis filicina* Magnus in Atti Congr. Bot. Internaz. Genova (1892), p. 167, 1893. (Hiratsuka, f. in Mem. Tottori

Agric. Coll. IV, p. 50, 1936; Kamei in Jour. Facul. Agric. Hokkaido Imp. Univ. XLVII, p. 15, 1940).

Hab. II, III. on *Phegopteris polypodioides* Fée (*Dryopteris phegopteris* C. Chr.) (*Miyama-warabi*). Mt. Ishikari-dake (Aug. 3, 1932, Y. T.), Mt. Kuro-dake (Aug. 18, 1933, N. H.); Yukomanbetsu (Sept. 29 & Oct. 1, 1957, N. & Y. H.; July 20, 1958, N. & Y. H.); Lake-side of Shikaribetsu-numa (S. K.).

3. *Uredinopsis intermedia* Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 166, 1932. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 71, 1936).

Hab. II, III. on *Athyrium acrostichoides* Diels. (*Miyama-shikeshida*). Mt. Kuro-dake (Sept. 9, 1926, N. H.).

4. *Uredinopsis ossiformis* Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 167, 1932.

Hab. II, III. on *Dryopteris austriaca* Woyнар, Schinz et Thellung (*Dryopteris dilatata* A. Gray) (*Shirane-warabi*). Lake-side of Shikaribetsu-numa (Sept. 30 & Oct. 1, 1929, S. K.).

5. *Uredinopsis struthiopteridis* Størmer ex Dietel in Ber. Deutsch. Bot. Ges. XIII, p. 331, 1895. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 58, 1936).

Hab. II, III. on *Matteuccia struthiopteris* Todaro (*Kusa-sotetsu*). Mt. Kuro-dake (Sept. 12, 1926, N. H.).

6. *Uredinopsis woodsiae* Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 162, 1932. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 67, 1936).

Hab. II, III. on *Woodsia polystichoides* Eat. (*Iwa-denda*). Mt. Kuro-dake (Aug. 18, 1933, N. H.).

7. *Milesina jezoensis* Kamei et Hiratsuka, f. in Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 32, fig. 1 (p. 28), fig. 2, c (p. 29), fig. 3 (p. 31), 1931. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. IV, p. 113, 1932; Mem. Tottori Agric. Coll. IV, p. 113, 1936; Mem. Facul. Agric. Tokyo Univ. Education. V, p. 45, 1958; Kamei in Jour. Facul. Agric. Hokkaido Imp. Univ. XLVII, p. 109, 1940).

Hab. II, III. on *Polypodium vulgare* L. (*Yezo-denda*). Mt. Kuro-dake (Aug. 19, 1925, July 26, 1926 & Aug. 18, 1933, N. H.); Lake-side of Shikaribetsu-numa (Sept. 30 & Oct. 1, 1929, June 6, 1930 & June 11, 1931, S. K.).

8. *Milesina miyabei* Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 169, 1932.

Hab. II, III. on *Dryopteris crassirhizoma* Nakai (*O-shida*). Lake-side of Shikaribetsu-numa (Sept. 30, 1929, S. K.).

9. *Milesina sublevis* (Faull) Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 111 & pl. III, fig. 6, 1936.

Hab. II, III. on *Phyllitis scolopendrium* Newm. (*Scolopendrium*

*vulgare* Sm.) (*Ko-taniwatari*). Lake-side of Shikaribetsu-numa June 11, 1931, S. K.).

10. *Hyaloporsora aculeata* Kamei in Transact. Sapporo Nat. Hist. Soc. XII, p. 128 & figs. 1—3, 1932. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. IV, p. 111, 1932).

Hab. II, III. on *Blechnum nipponicum* Mak. (*Blechnum spicant* Wither. var. *nipponicum* Miyabe et Kudo, *Spicantopsis nipponica* Nakai var. *japonica* Nakai) (*Shishigashira*). Pankenikoro (July 9, 1925, N. H.); Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.).

11. *Hyaloporsora hakodatensis* Hiratsuka, f., Monogr. Pucciniastr., p. 171, 1936.

Syn. *Hyaloporsora hakodatensis* Hiratsuka, f. in Hiratsuka, f. & Uemura in Transact. Tottori Soc. Agric. Sci. IV, p. 20 & 25 & fig. 2, 1932. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. IV, p. 112, 1932; Mem. Tottori Agric. Coll. IV, p. 174, 1936).

Hab. II, III. on *Athyrium acrostichoides* Diels. (*Miyama-shikeshida*). Mt. Kuro-dake (Aug. 4, 1925 & Aug. 18, 1933, N. H.).

12. *Melampsorium alni* (Thüm.) Dietel in Engler-Prantl, Natürl. Pflanzenfam. I, 1. Abt. \*) , p. 551, 1900). (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 210, 1935; IV, p. 181, 1936).

Hab. II, III. on *Alnus maximowiczii* Call. (*Alnus alnobetula* Hartig var. *fruticosa* Winkl.) (*Miyama-hannoki*). Sôunkyô (Sôunkei) (Sept. 13, 1926, N. H.; Sept. 10, 1927, Naoharu Hiratsuka); Lake-side of Shikaribetsu-numa (Sept. 30, 1929, Y. T.).

13. *Melampsorium betulinum* (Fries) Klebahn in Zeitschr. f. Pflanzenkr. IX, p. 22, 1899. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 185, 1936).

Hab. II, III. on *Betula ermanii* Cham. var. *acutifolia* Winkl. (*Ye-zo-dakekamba*). Aizankei (Sept. 28 & 29, 1957, N. & Y. H.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.); Sôunkyô (July 22, 1958, N. & Y. H.).

II, III. on *Betula maximowicziana* Rgl. (*Udai-kamba*). Sôunkyô (Sôunkei) (Aug. 11, 1927, N. H.).

II, III. on *Betula tauschii* Koidz. (*Betula japonica* Sieb.) (*Shira-kamba*). Sôunkyô (Sôunkei) (Sept. 10, 1927, Naoharu Hiratsuka).

14. *Melampsorium hiratsukanum* S. Ito ex Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 9, 1927. (Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 194, 1936).

Hab. II, III. on *Alnus tinctoria* Sarg. var. *obtusiloba* Call. (*Yama-hannoki*). Sôunkyô (Sôunkei, Sôunbetsu) (July 26, 1926 & Aug. 11,

\*) The following abbreviations are used for the name of the collectors of fungi mostly frequently named in the list: K. M. = Kingo Miyabe; S. I. = Seiya Ito; N. H. = Naohide Hiratsuka; Y. H. = Yasuyuki Hiratsuka; S. Iw. = Satoru Iwadare; M. O. = Mitsuo Okamoto; Y. T. = Yoshio Tokunaga; S. K. = Senji Kamei.

1927, N. H.); Lake-side of Shikaribetsu-numa (Sept. 30, 1929, Y. T.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.); Aizankei (Sept. 29, 1957, N. & Y. H.).

II, III. on *Alnus tinctoria* Sarg. var. *velutina* Hara (*Ke-yama-hannoki*). Nukabira (Oct. 14, 1958, Y. H.).

15. *Melampsorella caryophyllacearum* Schröter in Hedwigia. XIII, p. 85, 1874. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 299, 1927; Mem. Tottori Agric. Coll. IV, p. 202, 1936).

Syn. *Melampsorella elatina* (Alb. et Schw.) Arthur (Hiratsuka, f. in Bot. & Zool. V, p. 159, 1930).

Hab. 0, I. on *Abies mayriana* Miyabe et Kudo (*Ao-todomatsu*). Sôunkyô (July 22, 1958, N. & Y. H.).

II, III. on *Cerastium vulgatum* L. var. *glandulosum* Rgl. (*Mimi-nagusa*). Mt. Kuro-dake (Aug. 5, 1925, N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

II, III. on *Stellaria fenzlii* Rgl. (*Stellaria yezoensis* Maxim.) (*Yezo-hakobe*). Mt. Kuro-dake (Aug. 18, 1933, N. H.).

16. *Pucciniastrum agrimoniae* (Diet.) Tranzschel in Script. Bot. Hort. Univ. Petropol. IV, p. 301, 1895.

Hab. II, III. on *Agrimonia pilosa* Ledeb. (*Kin-mizuhiki*). Sôunkyô (Sôunbetsu) (Sept. 12, 1926, N. H.).

17. *Pucciniastrum circaeae* (Wint.) Spegazzini ex De Toni in Saccardo, Syll. Fung. VII, p. 763, 1888. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 303, 1927; Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 25 & 74, 1927; Bot. Mag. Tokyo. XLIV, p. 268, 1930; Mem. Tottori Agric. Coll. IV, p. 251, 1936).

Hab. II, III. on *Circaea alpina* L. (*Miyama-tanitate*). Mt. Kuro-dake (Aug. 4 & 18, 1925 & Sept. 12, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Sôunkyô (Sôunkei) (Aug. 17, 1925, N. H.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.).

18. *Pucciniastrum hydrangeae-petiolearis* Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 27 & 93, 1927. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 306, 1927; Bot. Mag. Tokyo. XLIV, p. 277, 1930; Mem. Tottori Agric. Coll. IV, p. 245, 1936).

Hab. II, III. on *Hydrangea petiolearis* Sieb. et Zucc. (*Hydrangea scandens* Maxim.) (*Tsuru-ajisai*). Mt. Kuro-dake (Aug. 4, 1925 & Sept. 12, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.; Aug. 19, 1925, K. M. & N. H.); Sôunkyô (Sôunkei, Sôunbetsu) (Aug. 17, 1925, K. M. & N. H.).

19. *Pucciniastrum miyabeorum* Hiratsuka in Bot. Mag. Tokyo. XII, p. 33, 1898. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIV, p. 264, 1930; Mem. Tottori Agric. Coll. IV, p. 271, 1936).

Hab. II, III. on *Viburnum furcatum* Bl. (*Mushikari*). Aizankei (Sept. 28, 1957, N. & Y. H.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.); Mt. Kuro-dake (Sept. 12, 1926, N. H.).

20. *Pucciniastrum potentillae* Komarov in Jaczewski, Komarov et Tranzschel, Fung. Ross. exsicc. no. 327, 1899. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIV, p. 275, 1930; Mem. Tottori Agric. Coll. IV, p. 237, 1936).

Hab. II, III. on *Potentilla fragarioides* L. (*Kijimushiro*). Lake-side of Shikaribetsu-numa (July 6, 1925, N. H.); Pankenikoro (July 9, 1925, N. H.).

II, III. on *Potentilla freyniana* Bornn. (*Mitsuba-tsuchiguri*). Mt. Kuro-dake (Aug. 18, 1925, K. M. & N. H.).

21. *Pucciniastrum pyrolae* Dietel ex Arthur in N. Amer. Fl. VII, p. 108, 1907.

Syn. *Pucciniastrum pyrolae* Schröter ex Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 219, 1936.

Hab. II, III. on *Pirola renifolia* Maxim. (*Jinyô-ichiyakusô*). Mt. Kuro-dake (Aug. 18, 1925, K. M. & N. H.).

II, III. on *Pirola* sp. Sôunkyô (July 22, 1958, N. & Y. H.).

22. *Thekopsora areolata* (Fr.) Magnus in Sitzungsber. d. Ges. Nat. Freunde zu Berlin (1875). p. 58, 1875. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 309, 1927; Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 14, 1927; Bot. Mag. Tokyo. XLIII, p. 19, 1929; Mem. Tottori Agric. Coll. IV, p. 297, 1936).

Hab. II, III. on *Prunus ssiori* Fr. Schm. (*Shûri-zakura*). Sôunkyô (Sôunbetsu) (Sept. 13, 1926, N. H.; Sept. 10, 1927, Naoharu Hiratsuka); Lake-side of Shikaribetsu-numa (Aug. 30, 1929, S. K.); Aizankei (Sept. 29, 1957, N. & Y. H.).

23. *Thekopsora guttata* (Schröt.) Sydow, Monogr. Ured. III, p. 467, 1915. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 307, 1927; Bot. Mag. Tokyo. XLIII, p. 14, 1929; Mem. Tottori Agric. Coll. IV, p. 320, 1936).

Hab. II, III. on *Galium trifloriforme* Kom. (*Kuruma-mugura*). Mt. Kuro-dake (Aug. 18 & Sept. 12, 1925; Sept. 12, 1926, N. H.); Pankekinaushi (Oct. 17, 1925, M. O.).

24. *Thekopsora menziesiae* Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 22, 1927; Mem. Tottori Agric. Coll. IV, p. 292, 1936.

Hab. II, III. on *Menziesia pentandra* Maxim. (*Ko-yôraku*). Mt. Kuro-dake (Aug. 18, 1933, N. H.); Aizankei (Sept. 29, 1957, N. & Y. H.).

25. *Thekopsora sparsa* (Wint.) Magnus in Dalla Torre & Sarnth., Fl. Tirol. III, p. 118, 1905. (Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 24, 1927; Jap. Jour. Bot. III, p. 308, 1927; Bot. Mag. Tokyo. XLIII, p. 19, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 136 & 213, 1935; IV, p. 286, 1936).

Hab. II, III. on *Arctous japonicus* Nakai (*Kuma-kokemomo*). Mt. Kuro-dake (Sept. 11, 1926, N. H.).

26. *Thekopsora tripetaleia* Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 23, 1927. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 308, 1927; Bot. Mag. Tokyo. XLIII, p. 18, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 136 & 213, 1935; IV, p. 290, 1936).

Hab. II, III. on *Tripetaleia bracteata* Maxim. (*Miyama-hotsutsuji*). Mt. Kuro-dake (Sept. 12, 1926, N. H.).

27. *Thekopsora vaccinii* (Wint.) Hiratsuka, f., Uredinolog. Stud., p. 260, 1955.

Syn. *Thekopsora myrtilлина* Karsten, Myc. Fenn. IV, p. 59, 1879. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 309, 1927; Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 19, 1927; Bot. Mag. Tokyo. XLIII, p. 16, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 136 & 212, 1935; IV, p. 306, 1936).

*Thekopsora vacciniorum* Karsten, Myc. Fenn. IV, p. 58, 1879. (Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 20, 1927; Jap. Jour. Bot. III, p. 309, 1927; Bot. Mag. Tokyo. XLIII, p. 15, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 137 & 214, 1935; IV, p. 325, 1936).

Hab. II, III. on *Vaccinium axillare* Nakai (*Kuro-usugo*). Mt. Kuro dake (Aug. 18, 1933, N. H.).

II, III. on *Vaccinium chamissonis* Bong. (*Yezo-kurousugo*). Mt. Kuro-dake (Aug. 18, 1933, N. H.).

II, III. on *Vaccinium smallii* A. Gray (*Oba-sunoki*). Mt. Kuro-dake (Aug. 18, 1933, N. H.).

II, III. on *Vaccinium uliginosum* L. (*Kuromame-no-ki*). Mt. Kuro-dake (Aug. 12, 1927, S. I., N. H. & S. Iw.; Aug. 18, 1933, N. H.); Mt. Aka-dake (Aug. 14, 1927, S. I., N. H. & S. Iw.); Kumonotaira (Sept. 10 & 11, 1926, N. H.); Daifunkakô (Aug. 13, 1927, S. I., N. H. & S. Iw.); Mt. Nisekaushuppe (Aug. 28, 1929, M. O.).

II, III. on *Vaccinium vitis-idaea* L. (*Kokemomo*). Mt. Kuro-dake (Aug. 18, 1933, N. H.); Kumonotaira (Sept. 11, 1926, N. H.); Mt. Hakuun-dake (Aug. 14, 1927, S. I., N. H. & S. Iw.); Mt. Ushiroasahidake (Aug. 13, 1927, S. I., N. H. & S. Iw.).

28. *Calyptospora goeppertiana* Kühn in Hedwigia. VIII, p. 81, 1869. (Hiratsuka, f. in Jour. Jap. Bot. IX, p. 277, 1933; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 137 & 216, 1935; IV, p. 329, 1936).

Hab. III. on *Vaccinium vitis-idaea* L. (*Kokemomo*). Mt. Hakuun-dake (Aug. 18, 1933, N. H.); Mt. Upepesanke (April 9, 1929, Y. T.).

29. *Melampsora hypericorum* Schröter in Brand- u. Rostpilze Schles. p. 26, 1869. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 291, 1927).

Hab. I, III. on *Hypericum erectum* Thunb. (*Otogirisô*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.).

30. *Melampsora kusanoi* Dietel in Bot. Jahrb. XXXVII, p. 104, 1905. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 291, 1927; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 135 & 207, 1935).

Hab. I, II, III. on *Hypericum kamtschaticum* Ledeb. var. *typicum* Y. Kimura (*Hai-otogiri*). Mt. Kuro-dake (Aug. 18, 1925, N. H.; Aug. 19, 1925, K. M. & N. H.); Goshikitaira (Aug. 12, 1927, S. I., N. H. & S. Iw.).

31. *Melampsora larici-capraearum* Klebahn in Forstl. Naturw. Zeitschr. VI, p. 467, 1897.

Hab. II, III. on *Salix bakko* Kimura (*Bakko-yanagi*). Aizankei (Sept. 29, 1957, N. & Y. H.).

32. *Melampsora larici-epitea* Klebahn in Zeitschr. f. Pflanzenkr. IX, p. 88, 1899. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 294, 1927).

Hab. II, III. on *Salix viminalis* L. var. *yezoensis* C. K. Schn. (*Kinu-yanagi*). Sôunkyô (Sôunkei) (Sept. 13, 1926, N. H.); Aizankei (Sept. 29, 1957, N. & Y. H.).

33. *Chnoopsora itoana* Hiratsuka, f. in Jap. Jour. Bot. III, p. 287, 1927. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 136 & 208, 1935).

Hab. III. on *Oxalis acetosella* L. (*Ko-miyama-katabami*). Mt. Kuro-dake (Aug. 4, 1925 & July 26, 1926, N. H.; Aug. 17, 1925, K. M. & N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Sôunkyô (Sôunbetsu) (July 26, 1926, N. H.; July 22, 1958, N. & Y. H.); Pankenikoro (July 9, 1925, N. H.); Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.); Yukomanbetsu (July 20, 1958, N. & Y. H.); Yukomanbetsu-Sugata-minoike (July 21, 1958, N. & Y. H.).

34. *Chrysomyxa abietis* (Wallr.) Unger in Beitr. z. vergl. Path. p. 24 & figs. 1—8, 1840. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIII, p. 476, 1929).

Hab. III. on *Picea glehni* Mast. (*Aka-todomatsu*). Mt. Nupukau-shi (June 6, 1925, N. H.).

35. *Chrysomyxa empteri* Schröter ex Jørstad in Kgl. Norske Vidensk. Selsk. Skr. XXXVIII, p. 51, 1936.

Syn. *Chrysomyxa empteri* Schröter, Pilze Schles. I, p. 372, 1887. (Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 33, 1927; Jap. Jour. Bot. III, p. 316, 1927; Bot. Mag. Tokyo. XLIII, p. 475, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 137 & 217, 1935).

Hab. II, III. on *Empetrum nigrum* L. (*Gankôran*). Mt. Kuro-dake (July 28, 1926, S. I. & N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

36. *Chrysomyxa expansa* Dietel in Bot. Jahrb. XXVIII, p. 287, 1900. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIII, p. 472, 1929; Mem. Tottori Agric. Coll. III, p. 217, 1935).



Hab. III. on *Rhododendron fauriae* Franch. var. *roseum* Nakai (*Yezo-shakunage*). Mt. Kuro-dake (July 26, 1926 & July 5, 1928, N. H.); Sôunkyô (July 22, 1958, N. & Y. H.); Lake-side of Shikaribetsu-numa (July 6, 1925, N. H.); Mt. Upepesanke (Oct. 11, 1958, Y. H.).

37. *Chrysomyxa ledi* De Bary in Bot. Zeitg. XXXVII, p. 809 & pl. X, figs. 7 & 8, 1879. (Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 34, 1927; Jap. Jour. Bot. III, p. 315, 1927; Bot. Mag. Tokyo. XLIII, p. 468, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 137 & 217, 1935).

Hab. II, III. on *Ledum palustre* L. var. *yezoense* Nakai (*Yezo-isotsutsuji*). Mt. Kuro-dake (Aug. 5, 1925, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Hakuun-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.).

II, III. on *Ledum palustre* L. var. *dilatatum* Wahl. (*Karafuto-isotsutsuji*). Mt. Nupukaushi (June 6, 1925, N. H.); Lake-side of Shikaribetsu-numa (June 6, 1925, N. H.); Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.).

38. *Chrysomyxa ledicola* Lagerheim in Tromsø Mus. Aarsh. XVI, p. 119, 1893. (Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 35, 1927; Jap. Jour. Bot. III, p. 315, 1927; Bot. Mag. Tokyo. XLIII, p. 469, 1929; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 138 & 218, 1935).

Hab. II, III. on *Ledum palustre* L. var. *procumbens* Ait. (*Hime-isotsutsuji*). Mt. Hokkai-dake (Aug. 19, 1925, K. M. & N. H.; Aug. 4, 1925, N. H.); Mt. Hakuun-dake (Aug. 4, 1925, N. H.); Mt. Kuro-dake (Aug. 4, 1925, N. H.; July, 1928, H. Kataoka; July 28, 1926, S. I. & N. H.; Aug. 18, 1925, K. M. & N. H.); Kumonotaira (Aug. 19, 1925, K. M. & N. H.; July 28, 1926, S. I. & N. H.).

39. *Chrysomyxa pirolae* Rostrup in Bot. Centralbl. V, p. 127, 1881. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIII, p. 474, 1929).

Hab. II, III. on *Pirola media* Sw. (*Maruba-no-ichiyakusô*). Mt. Nupukaushi (June 6, 1925, N. H.).

40. *Chrysomyxa ramischiae* Lagerheim in Svensk. Bot. Tidskr. III, p. 26 & figs. 1 & 3, 1909. (Hiratsuka, f. in Jap. Jour. Bot. III, p. 314, 1927; Bot. Mag. Tokyo. XLIII, p. 475, 1929).

Hab. II, III. on *Pirola secunda* L. (*Yamaichiyakusô*). Lake-side of Shikaribetsu-numa (June 6, 1925, N. H.).

41. *Chrysomyxa rhododendri* De Bary in Bot. Zeitg. XXXVII, p. 809 & pl. X, figs. 1—6, 1879. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIII, p. 470, 1929).

Hab. II, III. on *Rhododendron davuricum* L. (*Yezo-murasaki-tsutsuji*). Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

42. *Chrysomyxa succinea* (Sacc.) Tranzschel, Conspect. Ured. URSS. p. 314, 1939.

Syn. *Chrysomyxa alpina* Hiratsuka, f. in Bot. Mag. Tokyo. XLIII, p. 471, 1929. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. IV, p. 114, 1932; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 137 & 216, 1935).

*Chrysomyxa expansa* (non Dietel) (Hiratsuka, f. in Jap. Jour. Bot. III, p. 314, 1927; Mem. Tottori Agric. Coll. III, p. 137, 1935).

Hab. II, III. on *Rhododendron chrysanthum* Pall. (*Kibana-shakunage*). Mt. Kuro-dake (July 26, 1926, S. I. & N. H.; Aug. 4, 1925, N. H.; Aug. 18, 1933, N. H.); Mt. Eboshi-dake (Aug. 5, 1925, N. H.); Kumonotaira (Aug. 4, 1925 & July 5, 1928, N. H.; July 27, 1926, S. I. & N. H.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.); Mt. Goshiki-dake (Aug. 14, 1927, S. I., N. H. & S. Iw.); Yukomanbetsu-Sugataminoike (July 21, 1958, N. & Y. H.).

43. *Cronartium kamtschaticum* Jørstad in Skrift. utgitt av Det Norske Videnskaps-Akad. 1 Oslo. I. Matem.-Nat. Kl. no. 8 (1933), p. 27, 1934. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 138 & 218, 1935).

Syn. *Cronartium pedicularis* (non Lindr.) (Hiratsuka, f. in Bot. & Zool. II, p. 546, 1934).

Hab. O, I. on *Pinus pumila* Rgl. (*Hai-matsu*). Mt. Kuro-dake (July 26, 1926, S. I. & N. H.); Kumonotaira (July 27, 1926, N. H.); Yukomanbetsu-Sugataminoike (July 21, 1958, N. & Y. H.).

II, III. on *Pedicularis euphrasioides* Steph. (*Chishima-shiogama*). Hakuun-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.).

44. *Coleosporium fauriae* Sydow in Ann. Myc. XII, p. 160, 1914. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 220, 1935).

Hab. II, III. on *Fauria crista-galli* Mak. (*Iwa-ichô*). Mt. Chûbetsu-dake (Aug. 19, 1931, M. O.); Mt. Tomuraushi (Aug. 1927, H. Kataoka).

45. *Coleosporium petasitis* Léveillé ex Cooke, Handb. Brit. Fungi, p. 521.

Hab. II, III. on *Petasites japonicus* Maxim. var. *giganteus* Hort. (*Akita-buki*). Nukabira (Oct. 11, 1958, Y. H.).

46. *Coleosporium phellodendri* Komarov in Jaczewski, Komarov et Tranzschel, Fung. Ross. exsicc. no. 274, 1899.

Hab. II, III. on *Phellodendron lavalleyi* Dode (*Kihada*). Aizankei (Sept. 28, 1957, N. & Y. H.); Mt. Upepesanke (Oct. 11, 1958, Y. H.).

47. *Coleosporium pinicola* (Arth.) Jackson in Mem. Torrey Bot. Club. XVIII, p. 81, 1931.

Syn. *Coleosporium pini* Galloway in Jour. Myc. VII, p. 44, 1891 (non *Coleosporium pini* Lagerheim, 1889); Saccardo, Syll. Fung. XI, p. 208.

*Gallowaya pini* Arthur in Résult. Sci. Congr. Bot. Internat. Vienne (1905). p. 336, 1906; N. Amer. Fl. VII, p. 95, 1907; Sydow, Monogr. Ured. III, p. 657 & pl. XXX, fig. 188, 1915.

*Gallowaya pinicola* Arthur in Bull. Torrey Bot. Club. XLVII, p. 36, 1921; N. Amer. Fl. VII, p. 661, 1925.

*Coleosporium pinicola* Arthur, Manual of rusts in United States and Canada. p. 46 & fig. 67, 1934.

Hab. III. on *Pinus pumila* Rgl. (*Hai-matsu*). Yukomanbetsu-Sugataminoike (July 21, 1958, N. & Y. H.).

The present species is new to Japan.

48. *Coleosporium saussureae* Thümen in Bull. Soc. Imp. Nat. Moscou. LV, p. 212, 1880. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. IX, p. 222, 1927; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 138 & 220, 1935).

Syn. *Coleosporium taisetsuensis* S. Ito et Homma in Transact. Sapporo Nat. Hist. Soc. XV, p. 118, 1938.

Hab. O, I. on *Pinus pumila* Rgl. (*Hai-matsu*). Mt. Kuro-dake (July 26, 1926, S. I. & N. H.).

II, III. on *Saussurea riederi* Herd. (*Kita-azami*). Mt. Kuro-dake (Aug. 4, 1925 & Sept. 12, 1926, N. H.; Aug. 19, 1925, K. M. & N. H.); Goshiki-taira (Aug. 11, 1927, S. I., N. H. & S. Iw.); Yukinosawa (Sept. 11, 1926, N. H.); Mt. Nisekausupe (Aug. 12, 1929, M. O.).

II, III. on *Saussurea tilesii* Ledeb. var. *nivea* Koidz. (*Yukibatôhiren*). Mt. Kuro-dake (Aug. 12, 1927, S. I., N. H. & S. Iw.).

49. *Coleosporium senecionis* Fries, Summa Veg. Scand. p. 512. 1849.

Hab. II, III. on *Senecio cannabifolius* Less. (*Hangonsô*). Yukomanbetsu (Oct. 1, 1957, N. & Y. H.).

50. *Pucciniostele clarkiana* (Borel.) Dietel in Bot. Jahrb. XXVII, p. 564, 1899.

Hab. I, III. on *Astilbe thunbergii* Miq. var. *congesta* Boiss. (*Toriashishôma*). Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.).

#### Fam. *Pucciniaceae*.

51. *Phragmidium alpinum* Hiratsuka, f. in Ann. Myc. XXVIII, p. 280, 1930. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Jap. Jour. Bot. VII, p. 244, 1935; Mem. Tottori Agric. Coll. III, p. 135 & 204, 1935).

Hab. III. on *Rubus pedatus* Sm. (*Kogane-ichigo*). Mt. Kuro-dake (Aug. 19, 1925 & Sept. 11, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Kumonotaira (Sept. 11, 1926, N. H.); Mt. Nisekaushuppe (Aug. 28, 1929, M. O.).

52. *Phragmidium fusiforme* Schröter, Brand- u. Rostpilze Schles. p. 24, 1872. (Hiratsuka, f. in Jap. Jour. Bot. VII, p. 250, 1935; Mem. Tottori Agric. Coll. III, p. 204, 1935).

Hab. 0, I, II, III. on *Rosa acicularis* Lindl. var. *gmelini* C. K. Schneid. (*Ô-takanebara*). Lake-side of Shikarabetsu-numa (July 6, 1925, N. H.).

53. *Phragmidium itoanum* Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XIII, p. 134, 1934. (Hiratsuka, f. in Bot. & Zool. II, p. 545, 1934; Jap. Jour. Bot. VII, p. 271, 1935; Mem. Tottori Agric. Coll. III, p. 135 & 204, 1935).

Hab. II, III. on *Potentilla matsumurae* Wolf. (*Miyama-kimbai*). Mt. Hokkai-dake (Sept. 11, 1926, N. H.); Kumonotaira (Aug. 19, 1925, K. M. & N. H.; Sept. 11, 1926, N. H.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.); Hokkai-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.); Mt. Tomuraushi (Aug. 1927, H. Kataoka).

54. *Phragmidium miyabeianum* S. Ito et Hiratsuka, f. in Hiratsuka, f. in Ann. Myc. XXVIII, p. 279, 1930. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 546, 1934; Jap. Jour. Bot. VII, p. 258, 1935; Mem. Tottori Agric. Coll. III, p. 135 & 205, 1935).

Hab. III. on *Sieversia pentapetala* Greene (*Geum pentapetalum* Mak.) (*Chinguruma*). Kumonotaira (Aug. 19, 1925, K. M., N. H. & I. Tanaka; Sept. 11, 1926, N. H.); Mt. Kuro-dake (Sept. 12, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Mt. Hokkai-dake (Aug. 14, 1927, S. I., N. H. & S. Iw.); Mt. Kaun-dake (Aug. 26, 1932, Y. T.); Mt. Tomuraushi (Aug. 1927, H. Kataoka; Aug. 27, 1932, Y. T.).

55. *Phragmidium nambuianum* Dietel in Ann. Myc. VI, p. 227, 1908. (Hiratsuka, f. in Jap. Jour. Bot. VII, p. 239, 1935).

Hab. 0, I, II, III. on *Rubus kinashii* Lévl. et Vnt. (*Rubus occidentale* var. *japonicus* Miyabe) (*Kuro-ichigo*). Sôunkyô (Sôunkei) (Aug. 16 1925, N. H.).

56. *Phragmidium pauciloculare* (Diet.) Sydow, Monogr. Ured. III, p. 138 & pl. VI, fig. 60, 1912. (Hiratsuka, f. in Jap. Jour. Bot. VII, p. 282, 1935).

Hab. 0, II, III. on *Rubus parvifolius* L. (*Rubus triphyllus* Thunb.) (*Nawashiro-ichigo*). Mt. Kuro-dake (Aug. 19, 1925, N. H.).

57. *Phragmidium rubi-idaei* (DC.) Karsten, Myc. Fenn. IV, p. 52, 1878. (Hiratsuka, f. in Jap. Jour. Bot. VII, p. 235, 1935).

Hab. 0, I, II, III. on *Rubus idaeus* L. var. *aculeatissimus* Rgl. et Til. (*Rubus idaeus* L. var. *strigosa* Maxim.) (*Yezo-ichigo*). Mt. Kuro-dake (Aug. 16, 1925 & Sept. 12, 1926, N. H.); Aizankei (Sept. 29, 1957, N. & Y. H.); Sôunkyô (July 22, 1958, N. & Y. H.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.; July 20, 1958, N. & Y. H.).

0, I, II, III. on *Rubus idaeus* L. var. *aculeatissimus* Rgl. et Til. forma *concolor* Ohwi (*Kanayama-ichigo*). Aizankei (Sept. 29, 1957, N. & Y. H.).

58. *Phragmidium rubi-japonici* Kasai in Transact. Sapporo Nat. Hist. Soc. III, p. 40 & pl. I, fig. 13, 1910. (Hiratsuka, f. in Ann. Myc. XXVIII, p. 280, 1930; Jap. Jour. Bot. VII, p. 231, 1935).

Hab. II, III. on *Rubus pseudo-japonicus* Koidz. (*Rubus japonicus* Auct.) (*Hime-goyoichigo*). Sôunkyô (Sôunbetsu, Sôunkei) (Aug. 17, 1925, N. H.).

59. *Triphragmium ulmariae* Link, Sp. Pl. (VI), 2, p. 84, 1825.

Hab. 0, I, III. on *Filipendula kamtschatica* Maxim. (*Onishimotsuke*). Yukomanbetsu (Oct. 1, 1957, N. & Y. H.).

60. *Xenodochnus minor* Arthur in N. Amer. Fl. VII, p. 182, 1921. (Hiratsuka, f. in Jour. Jap. Bot. X, p. 130, 1934; Bot. & Zool. II, p. 546, 1934; Mem. Tottori Agric. Coll. III, p. 135 & 206, 1935).

Hab. III. on *Sanguisorba sitchensis* Trautv. et Mey. (*Takane-tochiso*). Hakuun-sawa (Aug. 14, 1927, N. H.); Goshiki-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.).

61. *Uromyces amurensis* Komarov in Jaczewski, Komarov et Tranzschel, Fung. Ross. exsicc. nos. 157 & 158, 1899.

Hab. 0, I, II, III, on *Maackia amurensis* Rupr. et Maxim. var. *buergeri* Schneid. (*Inu-enjyu*). Yukomanbetsu (Sept. 29, 1957, N. & Y. H.).

62. *Uromyces cacaliae* (DC.) Unger, Einfl. Bod. Vert. Ges. p. 216, 1836. (Hiratsuka, f. in Bot. & Zool. II, p. 545, 1934; Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931; Mem. Tottori Agric. Coll. III, p. 132, 1935).

Hab. III. on *Cacalia auriculata* DC. var. *bulbifera* Koidz. (*Komochi-mimikomori*). Mt. Kuro-dake (Aug. 4, 1925, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.); Yukomanbetsu (July 20, 1958, N. & Y. H.); Sôunkyô (July 22, 1958, N. & Y. H.).

63. *Uromyces japonicus* Berkeley et Curtis in Proc. Amer. Acad. Arts & Sci. IV, p. 126, 1858. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 185, 1935).

Hab. 0, I, III. on *Allium victorialis* L. (*Gyôjya-ninniku*). Sôunkyô (Sôunkei) (Aug. 3, 1925, N. H.); Mt. Kuro-dake (Aug. 4, 1925, N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

64. *Uromyces lespedezae-procumbentis* (Schw.) Curtis, Geol. Nat. Hist. Survey N. Car. III, p. 123, 1867.

Hab. 0, I, II, III. on *Lespedeza bicolor* Turcz. (*Yezo-yamahagi*). Sôunkyô (Sôunbetsu) (Aug. 15, 1925, N. H.).

65. *Uromyces lycoctoni* (Kalchbr.) Trotter, Fl. Ital. Crypt. Ured. p. 64, 1908.

Syn. *Uromyces aconiti* Fuckel, Symb. Myc. p. 61, 1869.

Hab. 0, I, III. on *Aconitum umbrosum* Kom. (*ô-reijinsô*). Sôunkyô (Sôunbetsu) (Aug. 11, 1927, S. I., N. H. & S. Iw.; July 22, 1958, N. & Y. H.); Mt. Kuro-dake (Aug. 4, 5 & 18, 1925, July 26, 1926 & Aug. 18, 1933, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.); Yukomanbetsu-Sugataminoike (July 21, 1958, N. & Y. H.); Penkenikoro (July 5, 1925, N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

66. *Uromyces peracarpae* S. Ito et Tochinal in S. Ito in Bot. Mag. Tokyo. XL, p. 278 & fig. 1 a, 1926. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931; Mem. Tottori Agric. Coll. III, p. 186, 1935).

Hab. III. on *Peracarpa circaeoides* H. Feer (*Tani-gikyô*). Sôunkyô (Sôunkei) (July 22, 1958, N. & Y. H.); Mt. Kuro-dake (July 26, 1926, N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

67. *Uromyces rudbeckiae* Arthur et Holway in Bull. Iowa Agric. Coll. (1884). p. 154, 1885.

Hab. III. on *Solidago virgaurea* L. (*Akinokirinsô*). Tenninkyô-Yukomanbetsu (July 18, 1958, N. & Y. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.).

68. *Uromyces solidaginis* (Sommerf.) Niessl in Verh. Nat.-Ver. Brünn. X, p. 163 & pl. III, fig. 10, 1872. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 132, 1935).

Hab. III. on *Solidago virgaurea* L. (*Akinokirinsô*). Mt. Kuro-dake (Aug. 12, 1927, S. I., N. H. & S. Iw.; Aug. 18, 1925, N. H.); Mt. Hokkaidake (Sept. 11, 1926, N. H.); Yukinosawa (Sept. 11, 1926, N. H.); Kumonotaira (Aug. 19, 1925, N. H.); Mt. Hakuun-dake (July 28, 1926, N. H.); Mt. Ushiroasahi-dake (Aug. 13, 1927, S. I., N. H. & S. Iw.); Mt. Nisekaushuppe (Aug. 12, 1929, M. O.).

69. *Uromyces trifolii* (Hedw. f.) Léveillé in Ann. Sci. Nat. 3 sér. VIII, p. 371, 1847.

Syn. *Uromyces trifolii-repentis* Liro in Acta Soc. Fauna et Flora Fenn. XXIX, no. 6, p. 15, 1906.

Hab. 0, I, II, III. on *Trifolium repens* L. (*Shiro-tsumekusa*). Lake-side of Shikaribetsu-numa (July 6, 1925, N. H.; Oct. 10, 1958, Y. H.); Pankenikoro (July 8, 1925, N. H.).

70. *Uromyces veratri* Schröter in Abhandl. Schles. Ges. vaterl. Kult. XLVIII, p. 10, 1870.

Hab. II, III. on *Veratrum grandiflorum* Loes. f. (*Veratrum album* L. var. *grandiflorum* Maxim.) (*Baikeisô*). Sôunkyô (Sôunbetsu) (Aug. 4, 1925, N. H.); Pankenikoro (July 9, 1925, N. H.); Yukomanbetsu-Sugataminoike (July 21, 1958, N. & Y. H.).

71. *Puccinia absinthii* (Hedw. f.) De Candolle, Fl. Fr. VI, p. 56, 1815.

Hab. II, III. on *Artemisia montana* Pamp. (*Ô-yomogi*). Sôunkyô (Sôunbetsu) (Aug. 17, 1925, N. H.; Oct., 1927, Naoharu Hiratsuka).

72. *Puccinia adoxae* Hedwig, f. ex De Candolle, Fl. Fr. II, p. 220, 1805. (Hiratsuka, f. in Ann. Myc. XXVIII, p. 278, 1930; Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931).

Hab. III. on *Adoxa moschatellina* L. (*Renpukusô*). Sôunkyô (Sôunbetsu, Sôunkei) (July 26, 1926, S. I. & N. H.).

73. *Puccinia angelicae* Fuckel, Symb. Myc. p. 52, 1870.

Hab. II, III. on *Angelica refracta* Fr. Schm. (*Yezo-ôba-senkyû*). Yukomanbetsu (Oct. 1, 1957, N. & Y. H.); Mt. Kuro-dake (Aug. 18, 1925, N. H.).

74. *Puccinia arenariae* (Schum.) Winter in Hedwigia. XIX, p. 38, 1880.

Hab. III. on *Moehringia lateriflora* Fenzl. (*Ôyamafusuma*). Sôunkyô (Sôunbetsu) (Sept. 13, 1926, N. H.).

75. *Puccinia artemisiae-keiskeanae* Miura ex Sydow in Ann. Myc. XI, p. 95 & fig. 1, 1913.

Hab. III. on *Artemisia keiskeana* Miq. (*Inu-yomogi*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.).

76. *Puccinia asperulae-odoratae* Wurth in Centralbl. Bakt. II, Abt. XIV, p. 314 & figs. 9—10, 1905.

Hab. 0, I, II, III. on *Asperula odorata* L. (*Kurumabasô*). Sôunkyô (Sôunkei) (Oct. 18, 1929, M. O.); Mt. Kuro-dake (Aug. 5, 1925, N. H.).

77. *Puccinia calthicola* Schröter in Beitr. Biol. Pfl. III, p. 61, 1879. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 132 & 190, 1935).

Hab. 0, I, II, III. on *Caltha fistulosa* N. Schip. (*Yezo-ryûkinka*). Hokkai-sawa (Sept. 10, 1926, N. H.).

78. *Puccinia catumnata* Sydow in Ann. Myc. XI, p. 102, 1913. (Hiratsuka, f. in Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 132 & 190, 1935).

Hab. II, III. on *Pleuropterypyrum weyrichii* H. Gross. var. *alpicolum* Koidz. (*Takane-urajiro-itadori*). Mt. Kuro-dake (Sept. 12, 1926, N. H.); Hokkai-sawa (Sept. 11, 1926, N. H.).

79. *Puccinia campanulae* Carmichael ex Berkeley in Smith, Engl. Fl. V (pt. 20, p. 365, 1836.) (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 132 & 191, 1935).

Hab. III. on *Campanula lasiocarpa* Cham. (*Iwa-gikyô*). Mt. Ushiro-asahi-dake (Aug. 13, 1927, S. I., N. H. & S. Iw.); Hakuun-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.).

80. *Puccinia caricis* Rebentisch, Fl. Neomarch. p. 356, 1804.

Hab. 0, I. on *Urtica takeadana* Ohwi (*Yezo-irakusa*). Sôunkyô (July 22, 1958, N. & Y. H.).

81. *Puccinia chrysosplenii* Greville ex Berkeley in Smith, Engl. Fl. V (pt. 2), p. 367, 1836. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931).

Hab. III. on *Chrysosplenium flagelliferum* Fr. Schm. (*Tsuru-nekonomesô*). Sôunkyô (Sôunbetsu) (Aug. 16, 1925, N. H.); Mt. Kuro-dake (Aug. 18, 1925, N. H.).

82. *Puccinia circaeae* Persoon, Syn. Fung. p. 228, 1801. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 133 & 191, 1935).

Hab. III. on *Circaea alpina* L. (*Miyama-tanitade*). Sôunkyô (Sôunbetsu) (Aug. 3, 4, 17 & 18, 1925, N. H.); Mt. Kuro-dake (Aug. 12, 1925, K. M. & N. H.; Sept. 12, 1926 & Aug. 18, 1933, N. H.); Yukomanbetsu (Oct. 1, 1957 & July 20, 1958, N. & Y. H.).

83. *Puccinia epilobii* De Candolle in Fl. Fr. II, p. 224, 1805; VII, p. 61, 1815. (Hiratsuka, f. in Ann. Myc. XXVIII, p. 278, 1930; Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 133 & 191, 1935).

Hab. III. on *Epilobium hornemanii* Rchb. (*Yezo-miyama-akabana*). Hokkai-sawa (Aug. 19, 1925, K. M., N. H. & I. T.; Sept. 11, 1926, N. H.); Kumonotaira (Aug. 19, 1925, N. H.).

84. *Puccinia erythropus* Dietel in Bot. Jahrb. XXXVII, p. 101, 1905.

Hab. II, III. on *Miscanthus sinensis* Anders. (*Susuki*). Sôunkyô (Sôunbetsu) (Sept. 17, 1926, N. H.).

85. *Puccinia fusispora* Sydow, Monogr. Ured. I, p. 590 & fig. 448, 1903.

Hab. III. on *Urtica takeadana* Ohwi (*Yezo-irakusa*). Nukabira (Oct. 11, 1958, Y. H.).

86. *Puccinia hakkodensis* Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 241 & fig. 22, 1931.

Hab. III. on *Clintonia udensis* Trautv. et Mey. (*Tsubame-omoto*). Mt. Kuro-dake (Aug. 12, 1927, S. I., N. H. & S. Iw.; Sept. 12, 1926, N. H.); Aizankei (Sept. 29, 1957, N. & Y. H.).

87. *Puccinia haleniae* Arthur et Holway in Arthur in Bull. Geol. Nat. Survey Minn. III, p. 30, 1887.

Hab. III. on *Halenia corniculata* Cornaz. (*Hanaikari*). Lake-side of Shikaribetsu-numa (July 6, 1925, N. H.).

88. *Puccinia hieracii* Martius, Prodr. Fl. Mosq. 2 ed., p. 226, 1817.

Syn. *Puccinia picridis* Hazsl., Brand- u. Rostpilze Ungarns, p. 81, 1877.

Hab. II, III. on *Picris japonica* Thunb. (*Picris hieracioides* var. *japonica* Rgl.) (*Kôzorina*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.).



89. *Puccinia hultenii* Tranzschel et Jørstad in Jørstad in Skr. utgitt av Det Norske Vid.-Akad, Oslo. I. Matem.-Nat. Kl. no. 9, p. 107 & fig. 7, 1934. (Hiratsuka, f. in Jour. Jap. Bot. X, p. 620 & fig. 16, 1935; Mem. Tottori Agric. Coll. III, p. 133, 1935).

Syn. *Puccinia rumicis-scutali* (non Winter) (Hiratsuka, f. in Ann. Myc. XXVIII, p. 279, 1930; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 133 & 194, 1935).

Hab. II, III. on *Rumex arifolius* All. (*Rumex montanus* Desf.) (*Takane-suiba*). Mt. Kuro-dake (Aug. 3 & 18, 1925, Sept. 12, 1926 & Aug. 12, 1927, N. H.; July 12, 1927, S. I., N. H. & S. Iw.).

90. *Puccinia infra-aequatorialis* Jørstad in Skr. utgitt av Det Norske Vid., -Akad, Oslo. I. Matem.-Nat. Kl. (1933), no. 9, p. 132 & fig. 18, 1934.

Hab. II, III. on *Cirsium kamtschaticum* Ledeb. (*Chishima-azami*). Sôunkyô (Sôunbetsu) (Aug. 11, 1927, S. I., N. H. & S. Iw.); Mt. Kuro-dake (Sept. 12, 1926, N. H.).

91. *Puccinia lactucae-debilis* Dietel in Ann. Myc. VI, p. 225, 1908.

Hab. 0, I, II, III. on *Ixeris dentata* Nakai (*Lactuca dentata* Mak. var. *thunbergii* Mak.) (*Nigana*). Sôunkyô (Sôunbetsu) (Aug. 16, 1925, N. H.).

92. *Puccinia majanthemi* Dietel in Bot. Jahrb. XXVIII, p. 285, 1900. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 133 & 195, 1935).

Hab. III. on *Majanthemum dilatatum* Nels. et Macbr. (*Maizurusô*). Mt. Kuro-dake (Aug. 4, 1925, K. M. & N. H.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.); Mt. Numanohara (Aug., 1927, H. Kataoka); Yukomanbetsu (July 20, 1958, N. & Y. H.).

III. on *Trillium kamtschaticum* Pall. (*Ôba-no-enreisô*). Lake-side of Shikaribetsu-numa (July 6, 1925, N. H.).

93. *Puccinia minussensis* Thümen in Bull. Soc. Imp. Nat. Moscou, LIII, p. 214, 1878.

Hab. 0, I, II, III. on *Lactuca raddeana* Maxim. (*Yama-nigana*). Sôunkyô (Sôunbetsu) (Aug. 17, 1925, N. H.).

94. *Puccinia miscanthi* Miura, Flora of Manchuria & E. Mongolia. III, p. 302, 1928.

Hab. 0, I. on *Plantago asiatica* L. (*Ôbako*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.).

95. *Puccinia nanbuana* Hennings in Hedwigia. XL, p. (26), 1901. (Hiratsuka, f. in Mem. Tottori Agric. Coll. III, p. 133 & 197, 1935).

Hab. II, III. on *Angelica edulis* Miyabe (*Amaniu*). Sôunkyô (Sôunbetsu) (Oct., 1927, Naoharu Hiratsuka).

II, III. on *Peucedanum multivittatum* Maxim. (*Hakusan-bofu*). Mt. Ushiroasahi-dake (Aug. 13, 1927, S. I., N. H. & S. Iw.).

96. *Puccinia nishidana* Hennings in Hedwigia. XL, p. (26), 1901.

Hab. II, III. on *Cirsium kamtschaticum* Ledeb. (*Chishima-azami*). Mt. Kuro-dake (Aug. 11, 1927, S. I., N. H. & S. Iw.); Aizankei (Sept. 29, 1957, N. & Y. H.); Sôunkyô (July 22, 1958, N. & Y. H.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.).

97. *Puccinia nolitangeris* Corda, Icon. Fung. IV, p. 16 & pl. V, fig. 57, 1840.

Hab. II, III. on *Impatiens noli-tangere* L. (*Kitsurifune*). Mt. Kuro-dake (July 26, 1926, N. H.); Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.).

98. *Puccinia osmorrhizae* Cooke et Peck in Rept. N. Y. State Mus. XXIX, p. 73, 1878.

Hab. III on *Osmorrhiza aristata* Mak. et Yabe (*Osmorrhiza japonica* Sieb. et Zucc.) (*Yabuninjin*). Aizankei (Sept. 29, 1957, N. & Y. H.).

99. *Puccinia phragmitis* (Schum.) Körnicke in Hedwigia. XV, p. 179, 1876.

Hab. II, III. on *Phragmites vulgaris* Trin. (*Kita-yoshi*). Yukomanbetsu (Oct. 1, 1957, N. & Y. H.).

100. *Puccinia poae-nemoralis* Otth in Mitt. Naturf. Ges. Bern (1870), p. 113, 1871.

Hab. II, III. on *Poa hakusanensis* Hack. (*Poa yezo-montana* Honda) (*Hakusan-ichigotsunagi*). Mt. Kuro-dake (Aug. 12, 1927, N. H.). *Poa hakusanensis* Hack. is a new host plant for the present fungus.

101. *Puccinia polygoni-amphibii* Persoon, Syn. Meth. Fung. p. 227, 1801.

Hab. II, III. on *Reynoutria sachalinensis* Nakai (*Polygonum sachalinense* Fr. Schm.) (*Ô-itadori*). Sôunkyô (Sôunbetsu) (Aug. 20, 1925, N. H.; July 22, 1958, N. & Y. H.); Mt. Kuro-dake (Sept. 12, 1926, N. H.).

102. *Puccinia porphyrogenita* Curtis in Thümen, Myc. univ. no. 545, 1876. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 133 & 199, 1935).

Hab. III. on *Chamaepericlimenum canadense* Aschers. et Graebn. (*Cornus canadensis* L.) (*Gozentachibana*). Mt. Kuro-dake (Aug. 4, 1925, N. H.); Takanehahara (May 2, 1929, M. O.); Sôunkyô (Sôunkei) (Aug. 17, 1925, N. H.; July 22, 1958, N. & Y. H.); Mt. Nisekaushuppe (Aug. 29, 1929, M. O.); Lake-side of Shikaribetsu-numa (July 7, 1925, N. H.); Mt. Nupukaushi (July 7, 1925, N. H.); Mt. Upepesanke (Oct. 11, 1958, Y. H.).

103. *Puccinia punctata* Link in Ges. Nat. Freunde Berlin Mag. VII, p. 30, 1815.

Hab. 0, I, II, III. on *Galium verum* L. var. *leiocarpum* Ledeb. (*Kibana-no-kawaramatsuba*). Sôunkyô (Sôunbetsu) (Aug. 17, 1925, K. M., N. H. & I. Tanaka).

104. *Puccinia recondita* Roberge ex Desmazierés in Bull. Soc. Bot. Fr. IV, p. 798, 1857.

Syn. *Puccinia glyceriae* S. Ito in Jour. Coll. Agric. Tohoku Imp. Univ. (Sapporo). III, p. 200 & pl. XI, fig. 2, 1909. (Hiratsuka, f. in Jour. Jap. Bot. XV, p. 435, 1939).

Hab. II, III. on *Glyceria lithuanica* Lindm. (*Karafuto-dojyôtsunagi*). Mt. Kuro-dake (Aug. 4, 1925, N. H.).

105. *Puccinia saxifragae* Schlechtendal, Fl. Berol. II, p. 134, 1824. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 134 & 200, 1935).

Hab. III. on *Saxifraga fusca* Maxim. var. *divaricata* Franch. et Sav. (*Yezo-kurokumosô*). Mt. Kuro-dake (Aug. 5 & 18, 1925 & Sept. 12, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Sôunkyô (Sôunkei) (Aug. 3, 1925, N. H.; July 9, 1929, M. O.; July 22, 1958, N. & Y. H.); Yukomanbetsu (Oct. 1, 1957, N. & Y. H.); Horoka-tokachi (Aug. 9, 1925, M. O.).

III. on *Saxifraga japonica* Boiss. (*Fuki-yukinoshita*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925 & July 26, 1926, N. H.); Mt. Kuro-dake (Aug. 18, 1925, N. H.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.).

106. *Puccinia schizonepetae* Tranzschel in Trav. Mus. Bot. Acad. Imp. Sci. St. Petersb. X, p. 203, 1913. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931).

Hab. III. on *Nepeta subsessilis* Maxim. var. *yezoensis* Franch. et Sav. (*Yezo-misogawasô*). Sôunkyô (Sôunbetsu) (Aug. 3, 1925, N. H.); Mt. Nisekaushuppe (Sept. 7, 1929, M. O.).

107. *Puccinia senecionis* Libert, Pl. Crypt. Ard., Cent. I, no. 92, 1830. (Hiratsuka, f. in Jour. Jap. Bot. XIII, p. 591, 1937).

Hab. 0, I, III. on *Senecio cannabifolius* Less. (*Senecio palmatus* Pall.) (*Hangonsô*). Sôunkyô (Sôunkei) (Aug. 3, 1925, N. H.).

108. *Puccinia tiarellaecola* Hiratsuka, f., Uredinolog. Stud., p. 334, 1955.

Syn. *Puccinia asiatica* (Kom.) Sydow var. *tiarellaecola* Savile in Canadian Jour. Bot. XXXII, p. 44, 1954. (non *Puccinia tiarellaecola* Berkeley et Curtis, 1874).

*Puccinia asiatica* Sydow (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Mem. Tottori Agric. Coll. III, p. 189, 1935).

Hab. III. on *Tiarella polyphylla* D. Don. (*Zudayakushu*). Sôunkyô (Sôunbetsu) (Aug. 17, 1925, N. H.; Sept. 10, 1927, Naoharu Hiratsuka; July 22, 1958, N. & Y. H.); Mt. Kuro-dake (Aug. 18, 1925 & Aug. 12, 1927, N. H.).

109. *Puccinia trautvetteriae* Sydow et Holway in Sydow, Monogr. Ured. I, p. 552 & pl. XXXII, fig. 432, 1903. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 134 & 201, 1935).

Hab. III. on *Trautvetteria japonica* Sieb. et Zucc. (*Trautvetteria palmata* Fisch. et Mey. var. *japonica* Huth.) (*Momijikaramatsu*). Mt. Kuro-dake (Aug. 4 & 18, 1925, July 26, 1926 & Sept. 11, 1926, N. H.; Aug. 12, 1927, S. I., N. H. & S. Iw.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.); Sôunkyô (Sôunkei) (Aug. 17, 1925, N. H.).

110. *Puccinia trollii* Karsten, Myc. Fenn. IV, p. 40, 1879. (S. Ito & Murayama in Transact. Sapporo Nat. Hist. Soc. XIX, p. 27 & fig. 15, 1950).

Hab. III. on *Trollius japonicus* Miq. (*Shinano-kimbai*). Mt. Kuro-dake (Aug. 1, 1932, M. Terui; Sept. 13, 1939, K. Akatsuka).

111. *Puccinia uralensis* Tranzschel in Script. Bot. Hort. Univ. Imp. Petropol. III, p. 138, 1891. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 216, 1931).

Hab. III. on *Cacalia hastata* L. var. *pubescens* Ledeb. (*ô-yobu-sumasô*). Sôunkyô (Sôunbetsu) (Aug. 4, 1925, N. H.).

112. *Puccinia veronicarum* De Candolle in Fl. Fr. II, p. 594, 1805. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 134 & 201, 1935).

Hab. III. on *Veronica stelleri* Pall. (*Chishima-kuwagata*). Yukinosawa (Sept. 11, 1926, N. H.); Kumonotaira (Aug. 19, 1925, N. H.); Hakuun-sawa (Aug. 14, 1927, S. I., N. H. & S. Iw.); Mt. Goshiki-dake (Aug. 14, 1927, S. I., N. H. & S. Iw.); Daifunkakô (Aug. 13, 1927, S. I., N. H. & S. Iw.).

113. *Puccinia vesiculosa* Schlechtendal ex Ehrenberg, Fung. Chamiss. p. 97, 1820. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931; Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 134 & 202, 1935).

Hab. III. on *Anemone narcissiflora* L. var. *sachalinensis* Miyabe et T. Miyake (*Karafuto-senkaso, Yezo-no-hakusanichige*). Mt. Kuro-dake (July 26, 1926, S. I. & N. H.; Aug. 4, 1925, N. H.); Mt. Hakuun-dake (Aug. 5, 1925, N. H.); Daifunkakô (Aug. 13, 1927, S. I., N. H. & S. Iw.); Yukinosawa (Sept. 11, 1926, N. H.); Mt. Hokkai-dake (Sept. 12, 1926, N. H.).

114. *Puccinia violae* (Schum.) De Candolle, Fl. Fr. VI, p. 62, 1815.

Hab. 0, I, II, III. on *Viola micrantha* Turcz. (*Yezo-no-tachitsubosumire*). Sôunkyô (Sôunbetsu) (Sept. 17, 1926, N. H.).

115. *Puccinia violae-glabellae* Miura ex Sydow in Ann. Myc. XI, p. 101 & text-fig., 1913. (Hiratsuka, f. in Bot. & Zool. II, p. 545, 1934; Mem. Tottori Agric. Coll. III, p. 135 & 203, 1935).

Hab. 0, I, II, III. on *Viola crassa* Mak. (*Takane-sumire*). Mt. Hokkai-dake (Sept. 13, 1927, S. I., N. H. & S. Iw.).

0, I, II, III. on *Viola brevistipulata* W. Beck (*Ōba-kisumire*). Upper part of Rūoman-sorapuchi-kawa (July 5, 1926, M. O.).

116. *Puccinia waldsteiniae* Curtis ex Peck in Ann. Rept. N. Y. State Mus. XXV, p. 120, 1873. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. III, p. 217, 1931).

Hab. III. on *Waldsteinia ternata* Fritisch (*Ko-kimbai*). Sōunkyō (Sōunbetsu) (Aug. 17, 1925, N. H.; Aug. 11, 1927, S. I., N. H. & S. Iw.); Mt. Kuro-dake (Aug. 18, 1925, N. H.).

### *Uredinales Imperfecti.*

117. *Aecidium hydrangeae-paniculatae* Dietel in Bot. Jahrb. XXXII, p. 630, 1903.

Hab. 0, I. on *Hydrangea paniculata* Sieb. var. *floribunda* Rgl. (*Nori-utsugi*). Sōunkyō (July 22, 1958, N. & Y. H.).

118. *Aecidium polygoni-cuspidati* Dietel in Bot. Jahrb. XXXII, p. 629, 1903.

Hab. 0, I. on *Reynoutria sachalinensis* Nakai (*Ō-itadori*). Yuko-manbetsu—Sugataminoike (July 21, 1958, N. & Y. H.).

119. *Uredo ishikariense* (Hiratsuka, f.) Hiratsuka, f. in Transact. Myc. Soc. Jap. no. 5, p. 4, 1957. (Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education. no. 5, p. 120, 1958).

Syn. *Pucciniastrum ishikariense* Hiratsuka, f. in Mem. Tottori Agric. Coll. IV, p. 284, 1936.

*Pucciniastrum goodyerae* (non Arthur) Hiratsuka, f. in Jour. Facul. Agric. Hokkaido Imp. Univ. XXI, p. 26, 1927. (Hiratsuka, f. in Bot. Mag. Tokyo. XLIV, p. 281, 1930; Jap. Jour. Bot. III, p. 307, 1927).

Hab. II. on *Goodyera maximowicziana* Mak. (*Akebono-shusuran*). Sōunkyō (Sōunbetsu, Sōunkei) (Aug. 4, 1925 & Aug. 18, 1933, N. H.); Mt. Kuro-dake (Aug. 18, 1925, K. M. & N. H.).

120. *Uredo iwatensis* Dietel in Bot. Jahrb. XXXIV, p. 592, 1905.

Hab. II. on *Clinopodium* sp. Sōunkyō (July 22, 1958, N. & Y. H.).

121. *Uredo yamadana* (Hiratsuka, f.) Hiratsuka, f. in Transact. Myc. Soc. Jap. no. 5, p. 3, 1957.

Syn. *Hyalopsora yamadana* Hiratsuka, f. in Hiratsuka, f. & Uemura in Transact. Tottori Soc. Agric. Sci. IV, p. 19 & 24, 1932. (Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. IV, p. 112, 1932; Mem. Tottori Agric. Coll. IV, p. 177, 1936).

Hab. II. on *Coniogramme intermedia* Hieron. (*Coniogramme fra-xinea* Fée) (*Iwagane-zemmai*). Mt. Kuro-dake (Sept. 9 & 12, 1926, N. H.).

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4. — (1927 c): Studies on the Melampsoraceae of Japan. (Jour. Facul. Agric. Hokkaido Imp. Univ. XXI: 1—41).
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10. — (1930 c): On *Melampsorella elatina* in Japan. (Agric. & Hortic. V: 153—164). In *Japanese*.
11. — (1931): On the microcyclic species of the Pucciniaceae collected in some mountains in Japan. (Transact. Tottori Soc. Agric. Sci. III: 211—253 & 1 pl.). In *Japanese*.
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Band/Volume: [12](#)

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Artikel/Article: [Uredinales found in the Daisetsuzan National Park Hokkaido, Japan. 363-385](#)