

# 琉球大学学術リポジトリ

## 琉球諸島産銹菌類に関する研究

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81. *Puccinia Caricis-Boottianae* Hiratsuka, f. nov. spec.<sup>1)</sup>

Syn. *Aecidium nikkense* (non Hennings et Shirai) Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education, I, p. 88, 1952.

*Puccinia sikokiana* (non Dietel) Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941.

Hab. 0, I. On *Farfugium japonicum* Kitamura (*Ligularia tus-silaginea* Mak.) (*Tsuwa-buki*). Amami-oshima Isl.: Nase-shi (March, 1936 & March 6, 1937, T. T., nos. 1106 & 1234); Uragami-aza, Mikata-mura (Dec. 23, 1953, Y. N., no. 1232). Okinawa Isl.: Odo-hama, Mabuni-mura (March 2, 1940, Y. T., no. 375); Idzumi, Motobu-machi (May 29, 1953, H. f. & S. S., no. 1233).

1) *Puccinia Caricis-Boottianae* Hiratsuka, f. nov. spec.

Syn. *Aecidium nikkense* (non Hennings et Shirai) (Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education, I, p. 88, 1952; Hiratsuka, f. & Yoshinaga in Mem. Tottori Agric. Coll. III, p. 332, 1935; Yoshinaga & Hiratsuka, f. in Bot. Mag. Tokyo, XLIV, p. 659, 1930).

*Puccinia sikokiana* (non Dietel) Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941.

Pycnidii amphigenis, plerumque epiphyllis, in greges rotundatos dispositis, sub-epidermicis, profundo immersis, melleis, 110~200  $\mu$  diam., 90~150  $\mu$  alt.; aecidiis plerumque hypophyllis, aggregatis, maculis orbicularibus 1~2.5 cm diam., flavo-brunneis densiuscule insidentibus, cupulatis, 350~500  $\mu$  diam., margine revoluta vix inciso; cellulis peridii firme conjunctis, polygonalibus, 44~60  $\times$  24~40  $\mu$ , pariete exteriori tenuiter striato 8~12  $\mu$  crasso, interiore verruculoso 4~8  $\mu$  crasso; aecidiosporis angulato-globosis vel ellipsoideis, dense minuteque verruculosis, subhyalinis, 28~40  $\times$  26~34  $\mu$ ; episporio 1~1.5  $\mu$  crasso.

Soris uredosporiferis hypophyllis, sparsis vel aggregatis, minutis, rotundatis vel oblongis, primo epidermide tectis, dein nudis, subpulverulentis, rufo-brunneis; uredosporis globosis vel subglobosis, rarius oblongis, echinulatis, subhyalinis, 30~40  $\times$  22~32  $\mu$ ; episporio 2~4  $\mu$  crasso; poris germinationis obscuris.

Soris teleutosporiferis hypophyllis, rarius epiphyllis, sparsis vel gregariis confluentibusque, rotundatis vel oblongis, saepe etiam linearibus et tunc usque 1 cm longis, epidermide rupta cinctis, pulvinatis, atro-brunneis vel atris; teleutosporis oblongo-clavatis, levis, utrinque rotundatis vel attenuatis, apice 4~10  $\mu$  crasso, 42~68  $\times$  17~20  $\mu$ ; pedicello hyalino vel flavido, usque 70  $\mu$  longo. (Plate II, fig. 5)

Hab. 0, I. On *Farfugium japonicum* Kitamura (*Tsuwa-buki*). Japan Proper:—*Honshu*: Prov. Awa: Tateyama (May 7, 1927, S. Hori; June 16, 1927, T. Uehatake). Prov. Sagami: Jyogashima (Misaki-machi) (Jan. 10, 1952, Hiratsuka, f. & S. Sato); Enoshima (Fujisawa-shi) (Feb. 19, 1954, N. Hiratsuka & S. Sato). Prov. Idzu: Kodzushima (June, 1950, H. Ikeda). *Shikoku*: Prov. Tosa: Akiyama-mura (May, 1915, T. Yoshinaga); Okino-shima (T. Yoshinaga). *Kiushu*: Prov. Hiuga: Ichiki-mura (May 9, 1947, S. Hirata); Nango-mura (May 8, 1947, S. Hirata); Udo-mura (June 1, 1946, S. Hirata). Prov. Osumi: Sata-misaki, Sata-mura (July 13, 1924, K. Ide); Yakushima Jan. 1, 1934, K. Ide). Prov. Satsuma: Wakita near Kagoshima (June 6, 1931, K. Ide); Okojima, Kagoshima Bay (May 24, 1931, May 23, 1934 & May 26, 1935, K. Ide).

II, III. On *Carex Boottiana* Hook. et Arn. (*Hige-suge*, *Iso-suge*). Japan Proper:—*Honshu*: Prov. Sagami: Enoshima (Fujisawa-shi) (Nov. 22, 1953, S. Sato; Feb. 19, 1954, N. Hiratsuka & S. Sato, type!); Jyogashima (Misaki-machi) (Jan. 10, 1952, N. Hiratsuka & S. Sato).

II, III. On *Carex brunnea* Thunb. (*Kogome-suge*). Okinawa Isl., Kume-jima Isl.

II, III. On *Carex brunnea* Thunb. (*Kogome-suge*). Okinawa Isl.: Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 230); Osato-mura (Jan. 20, 1940, H. f., no. 166). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1230).

The present fungus on *Carex brunnea* from Okinawa Island was first identified by the senior author with *Puccinia sikokiana* Dietel in 1941. However, it distinctly differs from the latter species in having much larger uredospores with thickened epispore and small teleutospores with thinner apex. The authors now identified this fungus with *Puccinia Caricis-Boottianae* Hiratsuka, f., which is newly described by the senior author. Its type specimen was collected by the senior author and Mr. Shoji Sato on *Carex Boottiana* at Enoshima (Fujisawa-shi), Sagami Province, Honshu, Japan.

The genetic relationship of this fungus was experimentally demonstrated by the senior author and his co-workers in Tokyo. They made inoculations with the sporidia from teleutospores of this species on leaves of *Farfugium japonicum*, and got positive results on them. They also demonstrated the return infection with the acidiospores on leaves of *Carex Boottiana*.

82. ***Puccinia Caricis-macrocephalae*** Dietel in Ann. Myc. VIII, p. 306, 1910.

Hab. II, III. On *Carex pumila* Thunb. (*Kobo-shiba*). Okinawa Isl.: Takashino-mura (May 15, 1953, H. f. & S. S., no. 1002).

83. ***Puccinia Chrysanthemi*** Roze in Bull. Soc. Myc. Fr. XVII, p. 92, 1900.

Hab. II, III. On *Chrysanthemum morifolium* Ramat. (*Kiku*) (*cult.*). Amami-oshima Isl.: Nase-shi (Oct., 1935, T. T., no. 1061).

84. ***Puccinia citrina*** Sydow, Monogr. Ured. I, p. 634 & pl. XXXVI, fig. 483, 1903. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 26, 1941). (Plate I, fig. 5)

Hab. II, III. On *Heterosmilax japonica* Kunth. (*Karasukiba-sankirai*). Okinawa Isl.: Kunigami-son (Feb. 9, 1954, S. S., no. 1194).

II, III. On *Smilax China* L. (*Sarutori-ibara*). Okinawa Isl.: Urazoe-mura (Feb. 23, 1940, Y. T., nos. 359 & 360); Nawa-shi (Jan. 19, 1940, H. f., no. 130); Shuri-shi (Feb. 1 & 19, 1940, Y. T., nos. 342 & 352).

II, III. On *Smilax* sp. Okinawa Isl.: Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 1150).

*Heterosmilax japonica* Kunth. is a new host plant for the present species.

85. ***Puccinia congesta*** Berkeley et Broome in Jour. Linn. Soc. XI, p. 91, 1871. (Hiratsuka, f. in Jour. Jap. Bot. XIII, p. 589, 1937; Bot. Mag. Tokyo, LIV, p. 162, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 26, 1941). (Plate I, fig. 3)

Syn. *Puccinia Solmsii* Hennings ex Saccardo, Syll. Fung. XIV, p. 357, 1899.

Hab. III. On *Ampelgynonum umbellatum* Masamune (*Tsuru-soba*). Amami-oshima Isl.: Nase-shi (July 2, 1935, T. T., no. 807); Mikatamura (July, 1936, T. T., no. 1127). Okinawa Isl.: Shuri-shi (April 22, 1899, Naoharu Hiratsuka, no. 1063; Jan. 10, 1940, H. f., nos. 3, 13 & 27; April 25 & 30, 1953, H. f., nos. 805 & 806); Mawashimura (Jan. 22, 1940, H. f., no. 333); Takamine-mura (Jan. 21, 1940, H. f., nos. 180 & 186); Mt. Katsuu-dake (Jan. 14, 1940, H. f., nos. 215 & 249); Nago-machi (Jan. 16, 1940, H. f., no. 102; May 8, 1953, H. f. & S. S., no. 802); Haneji-mura (Jan. 13, 1940, H. f., no. 210); Yagaji-shima, Haneji-mura (Jan. 15, 1940, H. f., no. 271); Motobumachi (April 18, 1940, Y. T., no. 471; May 29, 1953, H. f. & S. S., no. 803).

86. ***Puccinia Convolvuli*** Castagne, Observ. Fl. Ured. I, p. 16, 1842. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 163, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 26, 1941).

Hab. (0, I), II, (III). On *Ipomoea denticulata* Chois. (*Sokobenihamahirugao*). Okinawa Isl.: Onna-mura (Jan. 12, 1940, H. f., no. 61); Haneji-mura (Jan. 15, 1940, H. f., nos. 273 & 299). Kume-jima Isl. (Dec. 27, 1907, T. Miyagi, no. 1064).

(0, I), II, III. On *Calystegia Soldanella* R. Br. (*Hama-hirugao*). Okinawa Isl.: Kunigami-son (May 29, 1953, H. f. & S. S., no. 897); Ginoza-mura (June 5, 1953, H. f. & S. S., no. 896); Higashi-mura (June 13, 1953, H. f. & S. S., no. 895). Kume-jima Isl.: Gushikawason (March 7, 1954, S. S., no. 1215).

87. ***Puccinia coronata*** Corda, Icon. Fung. I, p. 6, 1837.

Syn. *Puccinia Lolii* Nielsen, Ugeskr. f. Landm. (IV), IX, p. 549, 1875.

Hab. II, (III). On *Lolium multiflorum* Lam. (*Nezumi-mugi*) (*cult.*). Okinawa Isl.: Mawashi-mura (May 23, 1953, H. f. & S. S., nos. 1043 & 1044).

88. ***Puccinia Crepidis-integrae*** Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education, I, p. 61, 1952; Jour. Jap. Bot. XXVIII, p. 113, 1952.

Syn. *Uredo Crepidis-integrae* Lindroth in Acta Soc. pro Fauna et Flora fennica, XXII, no. 3, p. 11, 1902. (Hiratsuka, f. in Bot.



Mag. Tokyo, LIV, p. 377, 1940).

Hab. II, III. On *Crepidiastrum lanceolatum* Nakai (*Crepis integrata* Miq.) (*Heranaren*). Amami-oshima Isl.: Mikata-mura (Oct. 19, 1936, T. T., no. 1062). Okinawa Isl.: Chinen-mura (Jan. 20, 1940, H. f., nos. 145, 146 & 147); Takamine-mura (March 19, 1940, Y. T., no. 405); Yontan-mura (Yontanzan-mura) (March 8, 1940, Y. T., no. 380).

89. ***Puccinia Crepidis-japonicae*** Dietel in Ann. Myc. VI, p. 226, 1908. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 163, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 26, 1941).

Hab. 0, I, II, III. On *Youngia japonica* DC. (*Crepis japonica* Benth.) (*Oni-tabirako*). Amami-oshima Isl.: Kasari-mura (Dec. 26, 1953, Y. N., no. 1185). Okinawa Isl.: Haneji-mura (Jan. 13, 1940, H. f., no. 96); Okuu-jima, Haneji-mura (Jan. 15, 1940, H. f., no. 284); Nago-machi (Jan. 16, 1940, H. f., no. 108; April 19, 1940, Y. T., no. 474; May 9, 1953, H. f. & S. S., no. 995); Onna-mura (Jan. 12, 1940, H. f., nos. 65 & 79); Shuri-shi (Jan. 10, 1940, H. f., nos. 5 & 23; May 23, 1953, H. f., no. 991; Oct. 25, 1953, S. S., no. 1098); Nishihara-mura (Jan. 20, 1940, H. f., no. 175); Osato-mura (Jan. 20, 1940, H. f., no. 157); Oroku-mura (Jan. 19, 1940, H. f., no. 124); Takamine-mura (Jan. 21, 1940, H. f., nos. 183 & 189); Nawa-shi (Jan. 11, 1940, H. f., no. 28); Motobu-machi (April 18, 1940, Y. T., no. 469; May 29, 1953, H. f. & S. S., no. 994).

90. ***Puccinia Cynodontis*** Lacroix in Desm., Pl. Crypt. II, no. 655, 1859. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 163, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

Hab. II, III. On *Cynodon Dactylon* Pers. (*Gyogi-shiba*). Okinawa Isl.: Shuri-shi (April 25, 1953, H. f., no. 1121); Haebaru-mura (May 16, 1953, H. f. & S. S., no. 1122); Haneji-mura (Jan. 13, 1940, H. f., nos. 97 & 206; April 14, 1940, Y. T., no. 449); Yagaji-shima, Haneji-mura (Jan. 15, 1940, H. f., no. 290).

91. ***Puccinia erebia*** Sydow in Philippine Jour. Sci. VIII, Bot. p. 475, 1913. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 163, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

Syn. *Uredo clerodendricola* Hennings in Hedwigia, XLI, p. 140, 1902.

Hab. II, III. On *Clerodendron inerme* Gaertn. (*Ibota-kusagi*). Amami-oshima Isl.: Kasari-mura (Dec. 24, 1953, Y. N., no. 1174). Okinawa Isl.: Haneji-mura (Jan. 15, 1940, H. f., nos. 267 & 268); Nawa-shi (Jan. 19, 1940, H. f., nos. 134 & 141; March 15, 1940, Y. T., no. 399); Osato-mura (Jan. 20, 1940, H. f., no. 177); Yontan-

mura (Yontan-zan-mura) (March 8, 1940, Y. T., no. 379); Itoman-machi (Jan. 21, 1940, H. f., no. 310); Yonabaru-machi (June 6, 1953, H. f. & S. S., no. 878). Kume-jima Isl.: Nakazato-son (March 5, 1954, S. S., no. 1228). Miyako Isl.: Taira-shi (Aug. 1, 1953, S. S., no. 1024); Miyaguni-aza, Ueno-mura (Aug. 3, 1953, S. S., no. 1023).

92. *Puccinia erythropus* Dietel in Bot. Jahrb. XXXVII, p. 101, 1905. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

Hab. II, III. On *Miscanthus sinensis* Anders. (*Susuki*). Okinawa Isl.: Kanegusuku-mura (Jan. 21, 1940, H. f., no. 195).

93. *Puccinia exhausta* Dietel in Bot. Jahrb. XXVIII, p. 283, 1900. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941). (Plate II, fig. 3)

Hab. III. On *Clematis grata* Wall. (*Ke-botandzuru*). Okinawa Isl.: Nawa-shi (Jan. 18 & 19, 1940, H. f., nos. 116 & 143; March 24, 1940, Y. T., no. 411); Shuri-shi (Jan. 10, 1940, H. f., nos. 17, 25 & 26; April 25, 1953, H. f., no. 981; Nov. 6, 1953, S. S., no. 1027); Mawashi-mura (May 3, 1953, H. f. & S. S., no. 982); Nagomachi (Jan. 14, 1940, H. f., no. 237; May 8, 1953, H. f. & S. S., nos. 980 & 984); Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 256); Haneji-mura (Aug., 1904, T. Miyagi, no. 1065); Gushikawa-mura (May 1, 1953, H. f. & S. S., no. 983); Kanegusuku-mura (Jan. 21, 1940, H. f., no. 312); Takamine-mura (Jan. 21, 1940, H. f., no. 185); Kochinda-mura (March 27, 1940, Y. T., no. 420). Miyako Isl.: Taira-shi (Aug. 1, 1953, S. S., no. 1026). Ishigaki Isl.: (Aug. 5, 1953, Y. N., no. 1028).

94. *Puccinia ferruginea* Léveillé in Vaillant, Voyage de la Bonite, Fungi, p. 204 & pl. 140, fig. 5, 1839-46.

Syn. *Puccinia Smilacis-Chinae* Hennings in Hedwigia, XL, p. (125), 1901.

Hab. III. On *Smilax China* L. (*Sarutori-ibara*). Amami-oshima Isl.: Chinzei-mura (Oct., 1936, T. T., no. 1033). Okinawa Isl.: Shuri-shi (April 30, 1899, Naoharu Hiratsuka, no. 1165).

III. On *Smilax stenopetala* A. Gray (*Satsuma-sankirai*). Ishigaki Isl.: (Aug. 5, 1953, Y. N., no. 1148).

III. On *Smilax* sp. Okinawa Isl.: Mt. Kushi-dake (June 5, 1953, H. f. & S. S., no. 1149).

95. *Puccinia ferruginosa* Sydow, Monogr. Ured. I, p. 13, 1902. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

Hab. III. On *Artemisia dubia* Wall. (*Yomogi*). Okinawa Isl.: Nago-machi (April 19, 1940, Y. T., no. 473; May 23, 1953, M. Nagayama, no. 873); Motobu-machi (May 29, 1953, H. f. & S. S., no. 869); Haneji-mura (Jan. 13 & 15, 1940, H. f., nos. 98 & 283; April 8, 1940, Y. T., no. 429); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 874); Miwa-mura (May 15, 1953, H. f. & S. S., no. 872). Kume-jima Isl.: Gushikawa-mura (March 7, 1954, S. S., no. 1220).

96. **Puccinia Glechomatis** De Candolle ex Poir. in Lam., Encycl. Bot. VIII, p. 245, 1808.

Hab. III. On *Glechoma hederacea* L. var. *grandis* Kudo (*Kakidoshi*). Amami-oshima Isl.: Nase-shi (Nov., 1936, T. T., no. 1068).

97. **Puccinia graminis** Persoon in Neues Mag. Bot. I, p. 119, 1794; Syn. Fung. p. 228, 1801. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 375, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

Hab. II, III. On *Hordeum sativum* Jess. var. *hexastichon* Hack. (*O-mugi*) (*cult.*). Okinawa Isl.: Urazoe-mura (March 13, 1940, Y. T., no. 394).

II, III. On *Triticum aestivum* L. (*Ko-mugi*) (*cult.*). Okinawa Isl.: Yontan-mura (Yontanzan-mura) (March 8, 1940, Y. T., no. 384); Ginowan-mura (Feb. 27, 1940, Y. T., no. 370); Mawashi-mura (Feb. 23, 1940, Y. T., no. 362); Takamine-mura (March 3, 1940, Y. T., no. 377); Gushikawa-mura (May 1, 1953, H. f. & S. S., nos. 891 & 892); Goeku-mura (May 1, 1953, H. f. & S. S., nos. 889, 890 & 893); Nishibaru-mura (April 13, 1953, M. Nagayama, no. 886).

98. **Puccinia Hashiokai** Hiratsuka, f. in Jour. Jap. Bot. XVIII, p. 570, 1942.

Syn. *Uredo taiwaniana* Hiratsuka, f. et Hashioka in Bot. Mag. Tokyo, XLVIII, p. 239, 1934. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 377, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 34, 1941).

Hab. II, (III). On *Epipremnum mirabile* Schott. (*Habukadzura*). Okinawa Isl.: Shuri-shi (March 12, 1940, Y. T., no. 397).

99. **Puccinia Hemerocallidis** Thümen in Bull. Soc. Imp. Nat. Moscou, LV, p. 81, 1880. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941).

Hab. II, III. On *Hemerocallis disticha* Donn. (*No-kwanzo*). Amami-oshima Isl.: Nase-shi (Sept., 1935, T. T., no. 1058). Okinawa Isl.: Motobu-machi (April 18, 1940, Y. T., no. 468; May 29, 1953,

H. f. & S. S., no. 899); Shuri-shi (May 23, 1953, H. f., no. 900); Haneji-mura (Jan. 13, 1940, H. f., no. 91; April 8, 1940, Y. T., no. 426); Mawashi-mura (Jan. 22, 1940, H. f., no. 337); Kunigami-son (May 29, 1953, H. f. & S. S., no. 901).

II, III. On *Hemerocallis* sp. Amami-oshima Isl.: Tatsugo-mura (Dec. 28, 1953, Y. N., no. 1191).

100. *Puccinia Hordei* Otth in Mitt. Nat. Ges. Bern (1870), p. 114, 1871.

Syn. *Puccinia simplex* Eriksson et Henning in Zeitschr. f. Pflanzenkr. IV, p. 260, 1894.

*Puccinia anomala* Rostrup ex Thümen in Flora, LXI, p. 92, 1878. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 375, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 25, 1941).

Hab. II, III. On *Hordeum sativum* Jess. var. *hexastichon* Hack. (*O-mugi*) (*cult.*). Amami-oshima Isl.: Nase-shi (Dec. 10, 1929, T. T., no. 1099). Okinawa Isl.: Haneji-mura (April 8, 1940, Y. T., no. 428); Nago-machi (May 3, 1953, M. Nagayama, no. 884; May 8, 1953, H. f. & S. S., nos. 881, 882 & 883; May 9, 1953, H. f. & S. S., nos. 880 & 885); Gushikawa-mura (May 1, 1953, H. f. & S. S., no. 879).

101. *Puccinia Kuehnii* Butler in Ann. Myc. XII, p. 82, 1914. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941).

Hab. II, (III). On *Saccharum arundinaceum* Retzius (*Yoshisusuki*). Okinawa Isl.: Nawa-shi (Jan. 11, 1940, H. f., no. 51).

102. *Puccinia Kusanoi* Dietel in Bot. Jahrb. XXVII, p. 569 & pl. VII, figs. 14 & 15, 1900. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941).

Hab. II, III. On *Pleioblastus linearis* Nakai (*Yanbaru-medake*). Okinawa Isl.: Shuri-shi (Feb. 19, 1940, Y. T., no. 347).

103. *Puccinia Kyllingiae-brevifoliae* Miura ex Ito & Homma in Transact. Sapporo Nat. Hist. Soc. XV, p. 128, 1938. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941).

Syn. *Uredo Kyllingiae-brevifoliae* Dietel in Bot. Jahrb. XXXIV, p. 591, 1905.

Hab. II, III. On *Kyllingia brevifolia* Rottb. (*Hime-ikugu*). Okinawa Isl.: Nago-machi (Jan. 16, 1940, H. f., nos. 103 & 104); Haneji-mura (Jan. 13, 1940, H. f., no. 88); Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 254); Takamine-mura (Jan. 21, 1940, H. f., no. 188).

104. **Puccinia Lactucae-debilis** Dietel in Ann. Myc. VI, p. 225, 1908. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 164, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941).

Hab. 0, I, II, III. On *Ixeris japonica* Nakai (*Jishibari*). Okinawa Isl.: Kunigami-son (April 13, 1940, Y. T., no. 433); Kiyan-mura (March 3, 1940, Y. T., no. 374); Goeku-mura (May 1, 1953, H. f. & S. S., no. 996).

0, I, II, III. On *Ixeris Nakazonei* Kitamura (*Miyako-jishibari*). Okinawa Isl.: Yonabaru-machi (June 6, 1953, H. f. & S. S., no. 1036); Takamine-mura (May 15, 1953, H. f. & S. S., nos. 1136 & 1137); Ginoza-mura (June 5, 1953, H. f. & S. S., no. 1138); Kunigami-son (May 29, 1953, H. f. & S. S., no. 1139).

0, I, II, III. On *Ixeris stolonifera* A. Gray (*Iwa-nigana*). Okinawa Isl.: Haneji-mura (Jan. 13, 1940, H. f., no. 201); Nago-machi (Jan. 16, 1940, H. f., no. 106); Motobu-machi (May 29, 1953, H. f. & S. S., no. 997).

*Ixeris Nakazonei* Kitamura is a new host plant for the present species.

105. **Puccinia Lactucae-repentis** Miyabe et T. Miyake ex Sydow in Ann. Myc. XI, p. 96, 1913.

Hab. 0, I, II, III. On *Ixeris repens* A. Gray (*Lactuca repens* Benth. et Hook. f.) (*Hama-nigana*). Okinawa Isl.: Higashi-mura (June 12, 1953, H. f. & S. S., no. 973).

106. **Puccinia Lapsanae** Fuckel in Jahrb. Nass. Ver. Nat. XXIII~XXIV, p. 53, 1870. (Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education, I, p. 71, 1952).

Hab. (0, I), II, III. On *Lapsana humilis* Mak. (*Yabutabirako*). Amami-oshima Isl.: Nase-shi (Sept., 1935, T. T., no. 1160).

107. **Puccinia Lepturi** Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941.

Hab. II, III. On *Lepturus repens* R. Br. (*Hai-shiba*). Okinawa Isl.: Nawa-shi (Jan. 9, 1940, H. f., no. 11); Yagaji-shima, Haneji-mura (Jan. 15, 1940, H. f., no. 277, type!).

108. **Puccinia levigata** (Syd. et Butl.) Hiratsuka, f. apud Hiratsuka, f. & Yoshinaga in Mem. Tottori Agric. Coll. III, p. 315, 1935. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 375, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 29, 1941).

Syn. *Diorchidium levigatum* Sydow et Butler in Ann. Myc. V, p. 500, 1907; Ito in Jour. Coll. Agric. Tohoku Imp. Univ. (Sapporo), III, p. 239 & pl. XII, fig. 7, 1909.

Hab. II, III. On *Oplismenus compositus* Beauv. (*Edauchi-chijimizasa*). Okinawa Isl.: Shuri-shi (Nov. 27, 1898, Naoharu Hiratsuka, no. 1161; Feb. 19, 1940, Y. T., nos. 349 & 478).

109. ***Puccinia levis*** (Sacc. et Bizz.) Magnus in Ber. Deutsch. Bot. Ges. IX, p. 190 & pl. IX, figs. 28~37, 1891. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 376 & text-fig. 1, e, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 29, 1941). (Plate II, fig. 8)

Syn. *Diorchidium leve* Sacc. et Bizz. in Michelia, II, p. 648, 1882.

Hab. II, III. On *Digitaria Henryi* Rendle (*Henrii-mehishiba*). Okinawa Isl.: Nishibaru-mura (Jan. 20, 1940, H. f., nos. 168, 169 & 173).

II, III. On *Digitaria chinensis* Hornem. (*Digitaria timorensis* Balansa) (*Ko-mehishiba*). Okinawa Isl.: Nishibaru-mura (Jan. 20, 1940, H. f., no. 174).

110. ***Puccinia Lophatheri*** (Syd.) Hiratsuka, f. in Jour. Jap. Bot. XIV, p. 36, 1938. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 29, 1941).

Syn. *Diorchidium Lophatheri* Sydow in Ann. Myc. XII, p. 107, 1914.

Hab. II, III. On *Lopatherum gracile* Brongn. (*Sasakusa*). Amami-oshima Isl.: Tatsugo-mura (Dec. 28, 1953, Y. N., no. 1181). Okinawa Isl.: Shuri-shi (Jan. 11, 1940, H. f., no. 45); Mt. Onna-dake (Jan. 12, 1940, H. f., no. 73); Nago-machi (Oct. 20, 1907, T. Miyagi, no. 1059); Mt. Benoki-yama (April 10, 1940, Y. T., no. 431); Kuni-gami-son (Oct. 14, 1953, S. S., no. 1020).

111. ***Puccinia Magnusiana*** Körnicke in Hedwigia, XV, p. 179, 1876.

Hab. II, (III). On *Phragmites japonica* Steud. (*Tsuru-yoshi*). Okinawa Isl.: Yonabaru-machi (June 6, 1953, H. f. & S. S., no. 858).

112. ***Puccinia minussensis*** Thümen in Bull. Soc. Imp. Nat. Moscou, LIII, p. 214, 1878. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 29, 1941).

Syn. *Puccinia lactucicola* Miura ex Sydow in Ann. Myc. XI, p. 96, 1913.

Hab. 0, I, II, III. On *Lactuca indica* L. (*Aki-no-nogeshi*). Amami-oshima Isl.: Mikata-mura (Oct. 20, 1936, T. T., no. 977). Okinawa Isl.: Mawashi-mura (Jan. 22, 1940, H. f., no. 328; March 25, 1940, Y. T., no. 414); Oroku-mura (Jan. 19, 1940, H. f., no. 127); Urazoe-mura (March 13, 1940, Y. T., nos. 391 & 392); Shuri-shi (April 25, 1953, H. f., no. 976; Nov. 16, 1953, S. S., no. 1200); Goeku-mura

(May 1, 1953, H. f. & S. S., no. 974); Takamine-mura (May 15, 1953, H. f. & S. S., no. 975).

113. **Puccinia Miscanthi** Miura, Flora of Manchuria & E. Mongolia, III, p. 302 & pl. IV, fig. B, 1928.

Syn. *Puccinia miscanthicola* Tranzschel, Conspectus Ured. URSS, p. 93, 1939.

*Puccinia Eulaliae* Auct. (non Barclay).

Hab. II, III. On *Miscanthus sinensis* Anders. (*Susuki*). Okinawa Isl.: Shuri-shi (May 25, 1953, H. f. & S. S., no. 1123).

II, III. On *Miscanthus condensatus* Hack. (*Hachijyo-susuki*). Okinawa Isl.: Mawashi-mura (May 29, 1953, M. Nagayama, no. 857).

114. **Puccinia Miyoshiana** Dietel in Bot. Jahrb. XXVII, p. 569 & pl. VII, figs. 16 & 17, 1899. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 376, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 29, 1941).

Hab. II, III. On *Andropogon micranthus* Kunth. (*Hime-aburasusuki*). Okinawa Isl.: Haneji-mura (Jan. 13, 1940, H. f., no. 93); Urazoe-mura (March 13, 1940, Y. T., no. 395).

II, III. On *Ecceiopus cotulifer* A. Camus (*Abura-susuki*). Okinawa Isl.: Nakijin-son (June 18, 1953, H. f. & S. S., no. 1153); Mt. Katsuu-dake (April 17, 1940, Y. T., no. 464); Motobu-machi (May 29, 1953, H. f. & S. S., nos. 1090 & 1091); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., nos. 1092 & 1093).

115. **Puccinia Nanbuana** Hennings in Hedwigia, XL, p. (26), 1901. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 30, 1941).

Hab. II, III. On *Angelica kiusiana* Maxim. (*Oni-udo*). Amami-oshima Isl.: China-mura (March, 1935, T. T., no. 1097). Okinawa Isl.: Mabuni-mura (March 2, 1940, Y. T., no. 371); Yonabaru-machi (June 6, 1953, H. f. & S. S., no. 864); Takamine-mura (May 15, 1953, H. f. & S. S., nos. 865, 866 & 867).

116. **Puccinia Nishidana** Hennings in Hedwigia, XL, p. (26), 1901.

Syn. *Puccinia Cirsii-maritimi* Dietel in Ann. Myc. XX, p. 293, 1922. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 25, 1941).

*Puccinia efferta* Cummins in Ann. Myc. XXXV, p. 102 & fig. 6, 1937.

Hab. II, III. On *Cirsium brevicaule* A. Gray (*Shima-azami*). Okinawa Isl.: Takamine-mura (Jan. 21, 1940, H. f., nos. 190 & 191); Mawashi-mura (Jan. 22, 1940, H. f., no. 339); Haneji-mura (Jan. 15,



1940, Y. T., no. 381); Kunigami-son (April 13, 1940, Y. T., no. 445).

117. **Puccinia oahuensis** Ellis et Everhart in Bull. Torrey Bot. Club, XXII, p. 425, 1895.

Hab. II, III. On *Digitaria chinensis* Hornem. (*Digitaria timorensis* Balansa) (*Ko-mehishiba*). Okinawa Isl.: Shuri-shi (Jan. 10 & 11, 1940, H. f., nos. 15 & 54).

II, III. On *Digitaria Henryi* Rendle (*Henrii-mehishiba*). Okinawa Isl.: Nawa-shi (Jan. 18, 1940, H. f., no. 117); Chinen-mura (Jan. 20, 1940, H. f., no. 150); Onna-mura (Jan. 12, 1940, H. f., no. 63); Sashiki-mura (Jan. 20, 1940, H. f., no. 154); Mt. Katsuu-dake (April 17, 1940, Y. T., no. 466); Haneji-mura (Jan. 15, 1940, H. f., no. 287); Oroku-mura (Jan. 19, 1940, H. f., no. 126).

II, III. On *Digitaria violascens* Link (*Digitaria Ischaemum* Mühl. var. *asiatica* Ohwi) (*Aki-no-meshishiba*). Okinawa Isl.: Kanegusuku-mura (Jan. 21, 1940, H. f., nos. 304, 305 & 314); Onna-mura (Jan. 12, 1940, H. f., no. 81); Haneji-mura (Jan. 15, 1940, H. f., no. 266); Yagaji-shima, Haneji-mura (Jan. 15, 1940, H. f., no. 269); Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 258); Oroku-mura (Jan. 19, 1940, H. f., no. 122); Nishibaru-mura (March 13, 1940, Y. T., no. 387).

II, III. On *Digitaria* sp. Okinawa Isl.: Nago-machi (April 19, 1940, Y. T., no. 476).

118. **Puccinia Oenanthes-stoloniferae** Ito ex Tranzschel, Conspect. Ured. URSS, p. 299, 1939. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 30, 1941).

Syn. *Puccinia Oenanthes* T. Miyake in Jour. Sapporo Agric. Coll. II, p. 106 & pl. III, fig. 3, 1906. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940).

Hab. II, III. On *Oenanthe javanica* DC. (*Seri*). Okinawa Isl.: Kanegusuku-mura (Jan. 21, 1940, H. f., no. 302); Nawa-shi (Feb. 25, 1940, Y. T., no. 366); Takamine-mura (Jan. 21, 1940, H. f., no. 181); Shuri-shi (March 13, 1940, Y. T., no. 393; April 25, 1953, H. f., no. 863; June 10, 1953, S. S., no. 862); Haneji-mura (April 8, 1940, Y. T., no. 427).

119. **Puccinia Ophiopogonis** Cummins in Ann. Myc. XXXV, p. 101, 1937.

Syn. *Uredo Ophiopogonis* Sydow in Ann. Myc. I, p. 332, 1903.

Hab. II, (III). On *Ophiopogon jaburan* Lodd. (*Noshi-ran*). Ryukyu Isls. "Loochoo Isls." (O. Warburg, *type!*).

No material of the present species has been examined.

120. **Puccinia Phellopteri** Sydow, Monogr. Ured. I, p. 406, 1903.



Hab. II, (III). On *Glehnia littoralis* Fr. Schm. (*Phellopterus littoralis* Fr. Schm.) (*Hama-bofu*). Okinawa Isl.: Higashi-mura (June 13, 1953, H. f. & S. S., no. 868). Kume-jima Isl.: Gushikawa-son (March 7, 1954, S. S., no. 1216).

121. ***Puccinia philippinensis*** Sydow in Philippine Jour. Sci. VIII, no. 4, sect. C, Bot. p. 266, 1913. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 30, 1941).

Hab. II, III. On *Cyperus rotundus* L. (*Hama-suge*). Okinawa Isl.: Takamine-mura (Jan. 21, 1940, H. f., no. 184); Ginowan-mura (Feb. 27, 1940, Y. T., no. 369); Shuri-shi (Nov. 11, 1953, S. S., no. 1085).

122. ***Puccinia Phragmitis*** (Schum.) Körnicke in Hedwigia, XV, p. 179, 1876. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 376, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 30, 1941).

Syn. *Uredo Phragmitis* Schumacher, Enum. Fl. Saell. II, p. 231, 1803.

*Puccinia arundinacea* Hedwig, f. ex De Candolle, Encycl. Bot. VIII, p. 250, 1808.

Hab. II, III. On *Phragmites japonicus* Steud. (*Tsuru-yoshi*). Okinawa Isl.: Tomigusuku-mura (Feb. 24, 1940, Y. T., no. 363).

123. ***Puccinia Phyllostachydis*** Kusano in Bull. Coll. Agric. Tokyo Imp. Univ. VIII, p. 2 & pl. VI, figs. 1, 2, 10 & 11, 1908. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 30, 1941).

Hab. II, III. On *Sinoarundinaria aurea* Honda (*Hotei-chiku*). Okinawa Isl.: Shuri-shi (Feb. 19, 1940, Y. T., no. 348); Nawa-shi (Feb. 16, 1940, Y. T., no. 346); Urazoe-mura (Feb. 23, 1940, Y. T., no. 358); Takamine-mura (March 19, 1940, Y. T., no. 408). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1231).

124. ***Puccinia Pogonatheri*** Petch in Ann. Bot. Gard. Peradeniya, V, p. 235, 1912.

Hab. II, III. On *Pogonatherum crinitum* Kunth. (*Itachi-gaya*). Okinawa Isl.: Motobu-machi (May 29, 1953, H. f. & S. S., no. 859); Mt. Kushi-dake (June 5, 1953, H. f. & S. S., no. 860); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 861).

125. ***Puccinia polliniicola*** Sydow in Ann. Myc. XXIX, p. 156, 1931.

Hab. II, III. On *Microstegium vimineum* A. Camus (*Hime-ashiboso*). Okinawa Isl.: Nawa-shi (Feb. 25, 1940, Y. T., no. 1164).

126. **Puccinia Polygoni-amphibii** Persoon, Syn. Fung. p. 227, 1801. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 376, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941).

Hab. II, (III). On *Pleuropterus multiflorus* Turcz. (*Tsuru-dokudami*). Okinawa Isl.: Nawa-shi (March 24 & May 21, 1940, Y. T., nos. 413 & 480).

II, III. On *Reynoutria japonica* Houtt. (*Polygonum cuspidatum* Sieb. et Zucc.) (*Itadori*). Amami-oshima Isl.: Uken-mura (Oct. 5, 1935, T. T., no. 1128); Tatsugo-mura (Dec. 27, 1953, Y. N., no. 1189).

127. **Puccinia purpurea** Cooke in Grevillea, V, p. 15, 1876.

Hab. II, III. On *Sorghum propinuum* Hitchc. (*Sorghum halepense* Pers. var. *muticus* Honda) (*Hime-morokoshi*, *Seiban-morokoshi*). Okinawa Isl.: Shuri-shi (May 19 & 20, 1953, H. f., nos. 903, 904 & 905).

II, III. On *Sorghum vulgare* var. *sudanense* Hitchc. (*Sudan grass*) (*cult.*). Okinawa Isl.: Mawashi-mura (May 23, 1953, H. f. & S. S., nos. 907 & 908).

128. **Puccinia pusilla** Sydow apud Sydow & Butler in Ann. Myc. IV, p. 435, 1906. (Cummins in Uredineana, IV, p. 27 & figs. 14 & 16, 1953).

Syn. *Puccinia citrata* (non Sydow) (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 26, 1941).

*Puccinia Andropogonis-micranthi* Dietel in Ann. Myc. VII, p. 354, 1909.

Hab. II, III. On *Andropogon micranthus* Kunth. (*Hime-aburasusuki*). Okinawa Isl.: Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 241).

129. **Puccinia rufipes** Dietel in Bot. Jahrb. XXXII, p. 48, 1902. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941).

Hab. II, III. On *Imperata cylindrica* Beauv. var. *Koenigii* Durand et Schinz (*Chigaya*). Okinawa Isl.: Shuri-shi (Jan. 11, 1940, H. f., no. 36; May 2, 1953, H. f., no. 855); Chibuya near Nawa-shi (Jan. 11, 1940, H. f., no. 50); Onna-mura (Jan. 12, 1940, H. f., no. 60); Haneji-mura (Jan. 15, 1940, H. f., no. 282); Mt. Kushi-dake (June 5, 1953, H. f. & S. S., no. 854); Motobu-machi (May 29, 1953, H. f. & S. S., no. 853).

130. **Puccinia Scirpi-ternatani** Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941.

Hab. II, III. On *Scirpus ternatanus* Reinwardt (*O-aburagaya*). Amami-oshima Isl.: Tatsugo-mura (Dec. 28, 1953, Y. N., no. 1183).

Okinawa Isl.: Mt. Benoki-yama (April 11, 1940, Y. T., no. 441, *type!*).

131. **Puccinia Scleriae** (Paz.) Arthur in Mycologia, IX, p. 75, 1917. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 31, 1941). (Plate II, fig. 7)

Syn. *Rostrupia Scleriae* Pазschke in Hedwigia, XXXI, p. 96, 1892; Ito, Myc. Fl. Jap. II, no. 3, p. 346 & fig. 453, 1950.

Hab. II, III. On *Scleria Doederleiniana* Böcklr. (*Scleria scrobiculata* Auct.) (*O-shinjyugaya*). Amami-oshima Isl.: Kasari-mura (Dec. 24, 1953, Y. N., no. 1177). Okinawa Isl.: Shuri-shi (Jan. 11, 1940, H. f., no. 48; March 25, 1940, Y. T., no. 419); Mt. Katsuu-dake (Jan. 14, 1940, H. f., nos. 245 & 246); Mt. Benoki-yama (April 11, 1940, Y. T., no. 442); Mt. Kushi-dake (June 5, 1953, H. f. & S. S., no. 1151). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1213).

132. **Puccinia Smilacis-Sieboldii** Hiratsuka, f. in Bot. Mag. Tokyo, LVI, p. 377, 1942.

Hab. II, III. On *Smilax China* L. (*Sarutori-ibara*). Amami-oshima Isl.: Nase-shi (Oct., 1936, T. T., no. 1034).

II, III. On *Smilax nervo-marginata* Hayata (*Sasaba-sankirai*). Okinawa Isl.: Mt. Onna-dake (Jan. 12, 1940, H. f., no. 71). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1218).

*Smilax nervo-marginata* Hayata is a new host plant for this species.

133. **Puccinia Sorghi** Schweinitz in Transact. Amer. Phil. Soc. (n. s.), IV, p. 295, 1831.

Hab. II, (III). On *Zea Mays* L. (*Tomorokoshi*) (*cult.*). Okinawa Isl.: Mawashi-mura (April, 1940, Y. T., no. 461).

134. **Puccinia Stauntoniae** Tranzschel et Dietel apud Dietel in Ann. Myc. XXVIII, p. 274, 1930.

Hab. III. On *Stauntonia hexaphylla* Decne. (*Mube, Tokiha-akebi*). Okinawa Isl.: Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 877).

135. **Puccinia taiwaniana** Hiratsuka, f. et Hashioka in Transact. Tottori Soc. Agric. Sci. VI, p. 240, 1935. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 376, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 32, 1941). (Plate II, fig. 6)

Hab. II, III. On *Panicum patens* L. (*Hime-chigozasa*). Okinawa Isl.: Haneji-mura (June 13, 1940, H. f., nos. 94 & 95).

136. **Puccinia tokyensis** Sydow, Monogr. Ured. I, p. 377, 1902.

(Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 32, 1941).

Hab. (0, I), II, III. On *Cryptotaenia japonica* Hassk. (*Mitsubazeri*). Okinawa Isl.: Tamashiro-mura (Aug. 23, 1937, Y. T., no. 1067).

137. ***Puccinia variiformis*** Patouillard in Jour. de Bot. (1890), p. 57, 1890. (Plate I, fig. 4)

Hab. III. On *Hoya carnosa* R. Br. (*Sakura-ran*). Amami-oshima Isl.: Nase-shi (Nov., 1935, T. T., no. 1124); Tatsugo-mura (Dec. 28, 1953, Y. N., no. 1190).

138. ***Puccinia versicolor*** Dietel et Holway apud Holway in Bot. Gaz. XXIV, p. 28, 1897.

Syn. *Uredo Themedae* Dietel in Ann. Myc. VI, p. 228, 1908.

*Puccinia filipodia* Cummins in Ann. Myc. XXXV, p. 98 & text-fig. 7, 1937. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 375, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 27, 1941).

*Puccinia Themedae* Hiratsuka, f. in Bot. Mag. Tokyo, LVI, p. 379, 1942.

Hab. II, III. On *Heteropogon contortus* Beauv. (*Andropogon contortus* L.) (*Akahige-gaya*). Okinawa Isl.: Urazoe-mura (March 13, 1940, Y. T., nos. 388 & 389).

139. ***Puccinia Wattiana*** Barclay in Jour. Asiatic Soc. Bengal, LIX, pt. 2, p. 109, 1890. (Hiratsuka, f. in Mem. Facul. Agric. Tokyo Univ. Education, I, p. 83, 1952; Bot. Mag. Tokyo, LIV, p. 165, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 32, 1941). (Plate II, fig. 4)

Hab. III. On *Clematis Meyeniana* Walp. (*Yanbaru-senninso*). Amami-oshima Isl.: Chinzei-mura (Dec. 22, 1936, T. T., no. 1066); Kasari-mura (Dec. 24, 1953, Y. N., no. 1173). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1227).

III. On *Clematis Tashiroi* Maxim. (*Yaeyama-senninso*). Okinawa Isl.: Yabu-mura (May 9, 1953, H. f. & S. S., nos. 986, 987 & 988); Motobu-machi (April 15, 1940, Y. T., no. 455); Higashi-mura (June 13, 1953, H. f. & S. S., no. 989); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 1025); Nago-machi (Jan. 13, 1940, H. f., no. 293).

140. ***Puccinia Zoysiae*** Dietel in Bot. Jahrb. XXXII, p. 48, 1902. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 32, 1941).

Syn. *Aecidium Paederiae* Dietel in Hedwigia, XXXVI, p. 297, 1897. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 166, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941).

Hab. 0, I. On *Paederia chinensis* Hance. (*Yaito-bana*). Okinawa

Isl.: Shuri-shi (Jan. 10, 1940, H. f., nos. 19, 21 & 22); Motobu-machi (May 29, 1953, H. f. & S. S., no. 1071); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 1072); Haneji-mura (Jan. 15, 1940, H. f., nos. 265 & 274a); Kanegusuku-mura (Jan. 21, 1940, H. f., no. 315); Takamine-mura (May 15, 1953, H. f. & S. S., nos. 1069 & 1070). Miyako Isl.: Shimoji-cho (Aug. 2, 1953, S. S., no. 1073).

II, III. On *Zoisia macrostachya* Franch. et Sav. (*Oni-shiba*). Okinawa Isl.: Kunigami-son (April 13, 1940, Y. T., no. 444; May 29, 1953, H. f. & S. S., no. 1015).

II, III. On *Zoisia sinica* Hance. (*Nagami-no-onishiba*). Okinawa Isl.: Onna-mura (Jan. 12, 1940, H. f., no. 59); Yontan-mura (Yontan-zan-mura) (March 7, 1940, Y. T., no. 383).

II, III. On *Zoisia sinica* var. *sinica* Ohwi (*Zoisia liukiuiensis* Honda) (*Ko-onishiba*). Okinawa Isl.: Shuri-shi (Jan. 11, 1940, H. f., nos. 53 & 56); Yagaji-shima, Haneji-mura (Jan. 15, 1940, H. f., no. 272).

II, III. On *Zoisia tenuifolia* Trin. (*Ito-shiba*). Okinawa Isl.: Sashiki-mura (Jan. 20, 1940, H. f., nos. 153 & 155); Osato-mura (Jan. 20, 1940, H. f., no. 161); Nishibaru-mura (Jan. 20, 1940, H. f., no. 172); Nawa-shi (Jan. 19, 1940, H. f., nos. 131 & 135); Nakijin-mura (June 19, 1953, H. f. & S. S., no. 1016).

### Endophyllum Léveillé, 1825

141. *Endophyllum emasculatum* Arthur et Cummins in Philippine Jour. Sci. LXI, p. 475, 1936. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 32, 1941).

Syn. *Aecidium Breyniae* (non Sydow) (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 166, 1940).

Hab. I. On *Breynia rhamnoides* Müll.-Arg. (*Oshima-koban-no-ki*). Okinawa Isl.: Shuri-shi (Jan. 20, 1940, H. f., nos. 20 & 24); Nawa-shi (Jan. 19, 1940, H. f., no. 136); Mawashi-mura (Jan. 22, 1940, H. f., no. 332); Sashiki-mura (Jan. 20, 1940, H. f., no. 152); Osato-mura (Jan. 20, 1940, H. f., no. 158; Nov. 14, 1953, S. S., no. 1201); Kanegusuku-mura (Jan. 21, 1940, H. f., nos. 193 & 313); Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 250); Oroku-mura (Jan. 19, 1940, H. f., nos. 123 & 128).

### UREDINALES IMPERFECTI

#### *Aecidium* Persoon, 1801

142. *Aecidium Clerodendri* Hennings in Bot. Jahrb. XV, p. 6, 1892. (Plate I, fig. 7)

Hab. On *Clerodendron trichotomum* Thunb. (*Kusagi*). Amami-oshima Isl.: Kasari-mura (Dec. 24, 1953, Y. N., no. 1171).

143. **Aecidium Elaeagni** Dietel in Hedwigia, XXXVII, p. 212, 1898.

Hab. On *Elaeagnus glabra* Thunb. (*Tsuru-gumi*). Okinawa Isl.: Shuri-shi (May 2, 1953, H. f., nos. 1080 & 1081); Motobu-machi (May 29, 1953, H. f. & S. S., no. 1082).

144. **Aecidium Elaeagni-umbellatae** Dietel in Bot. Jahrb. XXXVII, p. 107, 1905.

Hab. On *Elaeagnus* sp. Okinawa Isl.: Mt. Kushi-dake (June 5, 1953, H. f. & S. S., no. 1084).

145. **Aecidium foetidum** Dietel in Bot. Jahrb. XXVIII, p. 289, 1901.

Hab. On *Mazus Miquelii* Mak. var. *stolonifer* Nakai f. *violascens* Nakai (*Sagigoke*). Amami-oshima Isl.: Nase-shi (Feb., 1935, T. T., no. 1236).

146. **Aecidium formosanum** Sydow in Ann. Myc. XI, p. 56, 1913. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 166, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941).

Hab. On *Emilia sonchifolia* DC. (*Usubeni-nigana*). Amami-oshima Isl.: Tatsugo-mura (Dec. 27, 1953, Y. N., no. 1176). Okinawa Isl.: Nawa-shi (Jan. 11, 1940, H. f., no. 31); Shuri-shi (Jan. 11, 1940, H. f., no. 39); Mawashi-mura (Jan. 22, 1940, H. f., no. 334; Sept. 10, 1951, M. Nagayama, no. 856); Kanegusuku-mura (Jan. 21, 1940, H. f., no. 199); Nishibaru-mura (Jan. 20, 1940, H. f., no. 176); Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 248); Nago-machi (Jan. 16, 1940, H. f., no. 300).

147. **Aecidium Kaernbachii** Hennings in Bot. Jahrb. XV, p. 5, 1892. (Plate I, fig. 8)

Hab. On *Ipomoea pes-caprae* Sweet (*Gunbai-hirugao*). Ishigaki Isl. (Aug. 6, 1953, Y. N., no. 1011).

148. **Aecidium Lysimachiae-japonicae** Dietel in Bot. Jahrb. XXXIV, p. 590, 1905. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 377, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941).

Hab. On *Lysimachia japonica* Thunb. (*Konasubi*). Okinawa Isl.: Mt. Katsuu-dake (April 17, 1940, Y. T., no. 465); Motobu-machi (April 18, 1940, Y. T., no. 467); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., no. 998).

149. **Aecidium Machili** Hennings in Hedwigia, XLI, p. 21, 1902.

Hab. On *Cinnamomum japonicum* Sieb. (*Yabu-nikkei*). Okinawa Isl.: Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 255); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., nos. 1074 & 1075); Higashi-mura (June 13, 1953, H. f. & S. S., nos. 1076 & 1079); Mt. Kushi-dake (June 5, 1953, H. f. & S. S., nos. 1077 & 1078).

On *Machilus Thunbergii* Sieb. et Zucc. (*Tabu-no-ki*). Amami-oshima Isl.: Kasari-mura (Dec. 24, 1953, Y. N., no. 1180). Okinawa Isl.: Kunigami-son (Oct. 14, 1953, S. S., no. 1095); Nago-machi (Nov. 27, 1953, S. S., no. 1197). Kume-jima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1226). Senkaku-Retto (Aug. 2, 1953, Y. N., no. 1086).

*Cinnamomum japonicum* Sieb. is a new host plant for this species.

150. **Aecidium Mori** Barclay in Jour. Asiatic Soc. Bengal, IX, pt. 2, p. 226, 1891. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 166, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941).

Hab. On *Morus australis* Poir. (*Shima-guwa*). Okinawa Isl.: Mabuni-mura (March 3, 1940, Y. T., no. 373); Nago-machi (Jan. 14, 1940, H. f., no. 240); Haneji-mura (Jan. 15, 1940, H. f., no. 280; May 9, 1953, H. f. & S. S., nos. 1053 & 1054).

151. **Aecidium Phyllanthi** Hennings in Bot. Jahrb. XV, p. 6, 1892.

Hab. On *Phyllanthus flexuosus* Müll.-Arg. (*Koban-no-ki*). Amami-oshima Isl.: Mitaka-mura (Feb., 1935, T. T., no. 1126).

152. **Aecidium Rraphiolepidis** Sydow in Ann. Myc. XX, p. 61, 1922. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 166, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941). (Plate I, fig. 6)

Hab. On *Rhaphiolepis liukiensis* Nakai (*Hosoba-sharinbai*). Okinawa Isl.: Mt. Onna-dake (Jan. 12, 1940, H. f., no. 84); Mt. Katsuu-dake (Jan. 14, 1940, H. f., nos. 224 & 264).

On *Rhaphiolepis umbellata* Mak. (*Sharinbai*). Okinawa Isl.: Motobu-machi (April 15, 1940, Y. T., no. 459).

#### Uredo Persoon, 1801

153. **Uredo Alocasiae** Sydow, Monogr. Ured. IV, p. 521, 1924. (Hiratsuka, f. in Bot. Mag. Tokyo, LIV, p. 377, 1940; Transact. Sapporo Nat. Hist. Soc. XVII, p. 33, 1941).

Hab. On *Alocasia macrorrhiza* Schott. (*Kuwadzu-imo*). Okinawa Isl.: Shuri-shi (Jan. 10, 1940, H. f., nos. 2 & 4); Nawa-shi (Jan. 22, 1940, H. f., nos. 325 & 326).

154. **Uredo Dianellae** Dietel in Hedwigia, XXXVII, p. 213, 1898.  
Syn. *Uredo Dianellae* Raciborski, Parasit. Algen u. Pilze Javas, II, p. 33, 1900.

Hab. On *Dianella ensifolia* Red. (*Dianella nemorosa* Lam.) (*Kikyo-ran*). Okinawa Isl.: Mt. Yonaha-dake (May 30, 1953, H. f. & S. S., no. 972); Mt. Taniu-dake (June 12, 1953, H. f. & S. S., nos. 969 & 971); Higashi-mura (June 13, 1953, H. f. & S. S., no. 970).

155. **Uredo Lasianthi** Sydow apud Sydow & Petrak in Ann. Myc. XXIX, p. 182, 1931.

Hab. On *Mephitidia plaginophylla* Nakai (*Maruba-ruriminoki*). Amami-oshima Isl.: Tatsugo-mura (Dec. 28, 1953, Y. N., no. 1207).

*Mephitidia plagiophylla* Nakai is a new host plant for the present species.

156. **Uredo Paniciplicati** Sawada in Jour. Taihoku Soc. Agric. & Forestr. VII, p. 42, 1943 (nom. seminud.); Ito & Murayama in Transact. Sapporo Nat. Hist. Soc. XVII, p. 170, 1943.

Hab. On *Setaria palmifolia* Stapf (*Panicum plicatum* Willd.) (*Sasakibi*). Okinawa Isl.: Mt. Katsuu-dake (Jan. 14, 1940, H. f., no. 231).

157. **Uredo paspalina** Sydow in Ann. Myc. XV, p. 177, 1917. (Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 34, 1941).

Hab. On *Paspalum scrobiculatum* L. (*Suzume-no-kobie*). Okinawa Isl.: Haneji-mura (April 8, 1940, Y. T., no. 425); Osato-mura (Jan. 20, 1940, H. f., no. 162).

158. **Uredo psychotricola** Hennings in Hedwigia, XXIV, p. 321, 1895.

Hab. On *Psychotria liukiensis* Hatusima (*Ryukyu-aoki*). Kumejima Isl.: Gushikawa-son (March 4, 1954, S. S., no. 1211).

This species is new to the Japanese Archipelago, and *Psychotria liukiensis* Hatusima is a new host plant for it.

159. **Uredo thermopsidicola** Hiratsuka, f. nov. spec.

Soris amphigenis, sparsis, minutissimis, mox nudis, epidermide fissa cinctis, pulverulentis, dilute brunneis; sporis globosis vel subglobosis, tenuiter echinulatis, flavo-brunneis,  $20\sim 24 \times 18\sim 20 \mu$ , episporio  $1.5\sim 2 \mu$  crasso, poris germinationis  $4\sim 6$  sparsis praeditis.

Hab. On *Thermopsis chinensis* Benth. (*Kuso-endo*). Okinawa Isl.: Ginoza-mura (June 5, 1953, H. f. & S. S., nos. 909 & 910, type!).



### Summary

1. The present study includes all the species of Uredinales occurring in the Ryukyu Islands, viz. Amami-gunto, Okinawa-gunto, Miyako-gunto and Yaeyama-gunto.

2. The total number of species treated in the present paper is 159, belonging to 26 genera. The largest genus is the *Puccinia*, possessing 68 species. Next come the *Uromyces* and the *Aecidium*, having 23 and 11 species, respectively. Then follow the *Coleosporium* and the *Phakopsora*, the former with 10 species, the latter with 9.

3. The summary of genera and species is as follows:—

Families	Genera	Number of species	
Melampsoraceae	Uredinopsis	1	32
	Milesina	3	
	Hyalopsora	1	
	Pucciniastrum	3	
	Phakopsora	9	
	Crossopsora	2	
	Coleopucciniella	2	
	Dasturella	1	
	Coleosporium	10	
	Pucciniaceae	Skierka	
Didymopsorella		1	
Kuehneola		2	
Hamaspora		3	
Poliotelium		1	
Maravalia		1	
Phragmidium		2	
Hemileia		1	
Gymnosporangium		1	
Xenosteles		1	
Pileolaria		1	
Ravenelia		2	
Uromyces		23	
Puccinia		68	
Endophyllum		1	
Uredinales Imperfecti	Aecidium	11	18
	Uredo	7	
Total	26 genera	159	

4. The novelties established or added by the authors in this paper are as follows:—

(1) Species new to science: 3 species—*Hamaspora okinawensis* Hiratsuka, f., *Puccinia Caricis-Boottianae* Hiratsuka, f. and *Uredo thermopsidicola* Hiratsuka, f.

(2) Species treated as new combination: 1 species—*Didymopsorella lemanensis* (Doidge) Hiratsuka, f.

(3) Species new to the Japanese Archipelago: 3 species—*Crossopsora Antidesmae-dioicae* (Syd.) Arthur et Cummins, *Uromyces Baeumlerianus* Břubák and *Uredo psychotricola* Hennings.

(4) Species new to the flora of the Ryukyu Islands: 49 species belonging to 15 genera—*Uredinopsis* 1 sp., *Milesina* 1 sp., *Pucciniastrium* 2 sp., *Phakopsora* 2 sp., *Crossopsora* 1 sp., *Coleopucciniella* 1 sp., *Coleosporium* 2 sp., *Kuehneola* 1 sp., *Maravalia* 1 sp., *Gymnosporangium* 1 sp., *Xenostele* 1 sp., *Uromyces* 7 sp., *Puccinia* 19 sp., *Aecidium* 7 sp. and *Uredo* 2 sp.

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Laboratories of Phytopathology and Mycology,  
Faculty of Agriculture, Tokyo University of Education  
and  
Faculty of Agriculture, University of the Ryukyus

## Explanation of figures

## Plate I

Fig. 1. Teleutosori of *Hamaspora Rubi-Sieboldii* (Kawagoe) Diet. on *Rubus Sieboldii* Bl. (Motobu-machi, Okinawa Isl., May 29, 1953, N. Hiratsuka & S. Shimabukuro, no. 1009).

Fig. 2. Teleutosori of *Pileolaria Shiraiana* (Diet. et Syd.) Ito on *Rhus succedanea* L. (Mt. Taniu-dake, Okinawa Isl., June 12, 1953, N. Hiratsuka & S. Shimabukuro, no. 943).

Fig. 3. Teleutosori of *Puccinia congesta* Berk. et Br. on *Ampelgynonum umbellatum* Masamune. (Shuri-shi, Okinawa Isl., April 30, 1953, N. Hiratsuka, no. 806).

Fig. 4. Teleutosori of *Puccinia variiformis* Pat. on *Hoya carnosa* R. Br. (Tatsugomura, Amami-oshima Isl., Dec., 28, 1953, Y. Niro, no. 1190).

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Fig. 6. Aecidia of *Aecidium Rhapsiolepidis* Syd. on *Rhapsiolepis liukiensis* Nakai. (Mt. Katsuu-dake, Okinawa Isl., Jan. 14, 1940, N. Hiratsuka, no. 224).

Fig. 7. Aecidia of *Aecidium Clerodendri* P. Henn. on *Clerodendron trichotomum* Thunb. (Kasari-mura, Amami-oshima Isl., Dec. 24, 1953, Y. Niro, no. 1171).

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## Plate II

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Fig. 2. Teleutospores of *Uromyces Baeumlerianus* Bubák on *Melilotus alba* Desv. (Shuri-shi, Okinawa Isl., June 25, 1953, N. Hiratsuka & S. Shimabukuro, no. 1029).  $\times 300$ .

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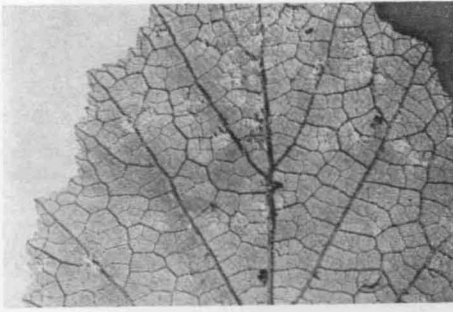


Fig. 1

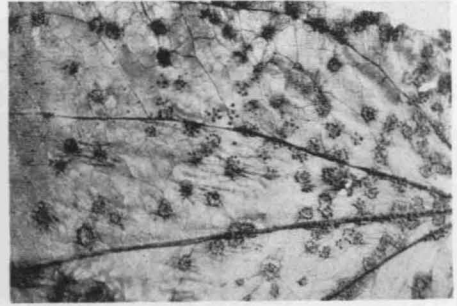


Fig. 5

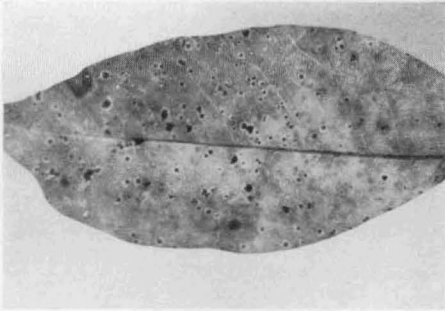


Fig. 2

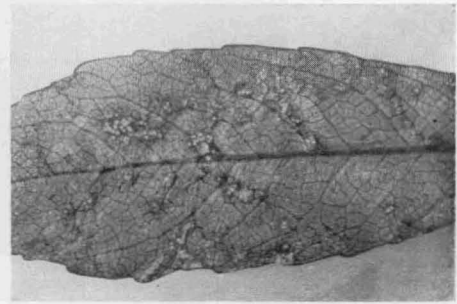


Fig. 6

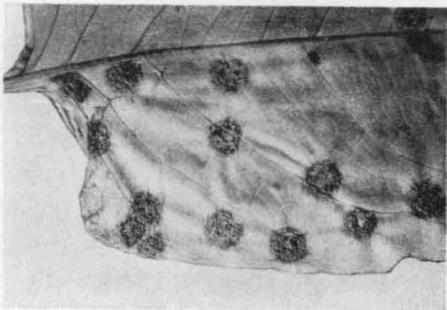


Fig. 3



Fig. 7

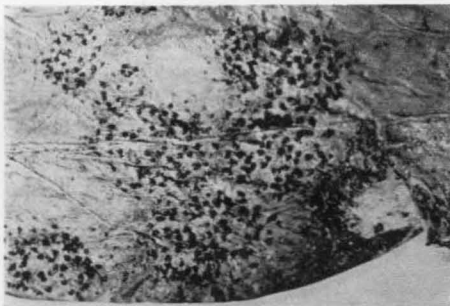


Fig. 4



Fig. 8

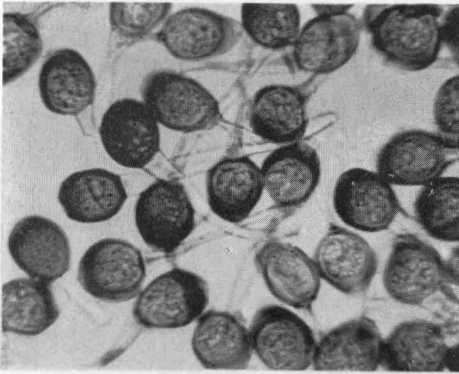


Fig. 1



Fig. 5

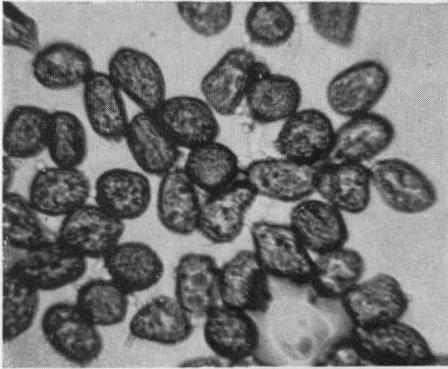


Fig. 2



Fig. 6

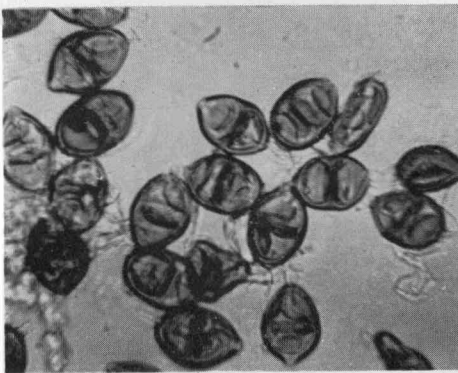


Fig. 3

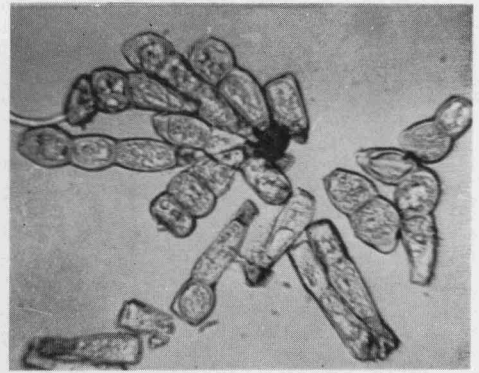


Fig. 7



Fig. 4

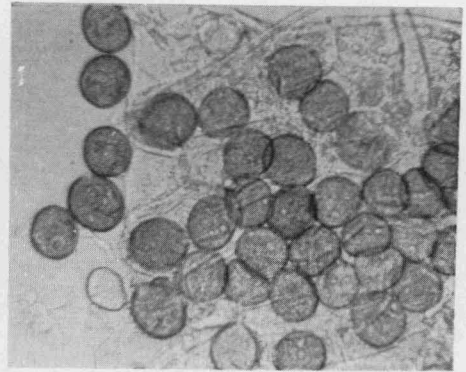


Fig. 8

## 琉球諸島産銹菌類に関する研究 (摘要)

平塚直秀・島袋俊一

本研究に先鞭をつけたのは平塚直治博士(著者の1人平塚の実父)である。同氏は1899年9月、沖縄中学校(後の沖縄第1中学校)に博物担当教師として来任、翌年4月病を得て退職帰郷するまで、在職わづかに7ヶ月間ではあつたが、その間菌学者である同氏は沖縄島所産の銹菌類にとくに興味を持ち、公務の余暇にこれらの採集調査を行つた。これらの採集品のうち首里城瑞泉門外で発見採集されたチシャノキの葉上の1銹菌は1900年、同氏著の“Notes on some Melampsorae of Japan. III. Japanese species of *Phacopsora*.”(植物学雑誌, XIV, p. 91)と云う表題の論文の中で、*Phacopsora Ehretiae* Hiratsuka(新種)として公表された。この論文は琉球諸島所産銹菌類に関する研究発表の最初のものである。

爾來1940年にいたる40年間に、三宅勉氏、伊藤誠哉博士およびDr. P. & H. Sydow, 著者の1人平塚らによつて公表された同諸島産の銹菌類は、*Phacopsora* 属1種、*Coleosporium* 属1種、*Poliotetium* 属1種、*Puccinia* 属5種および*Uromyces* 属1種、計5属9種であり、これらのうち*Puccinia Ophiopogonis* Cummins(*Uredo Ophiopogonis* Syd.)をのぞけば他の8種はすべて平塚直治博士ならびに宮城鉄夫氏の採集に係るものである。

1940年1月上旬、著者の1人平塚は銹菌類研究のため沖縄島を訪れ約3週間にわたり平良芳久君を助手として同島各地において銹菌類の採集調査を行つたが、さらに平塚の離島後は同年4月下旬まで平良君によつて採集がつづけられ多くの興味ある銹菌類を得た。これらの採集品を主な研究資料として平塚は同年、“Materials for a rust-flora of Riukiu Islands, I & II.”(植物学雑誌, LIV, p. 157~166, 373~377)と題して、奄美群島なども含む琉球諸島産銹菌類19属76種を公表した。ついで、翌1941年、さらに平塚は“Uredinales of Okinawa Island”(札幌博物学会報, XVII, p. 16~39)という表題で、沖縄本島産銹菌類20属96種(新種3種を含む)をあげ、同島の銹菌類フロラを論じた。

1953年4月下旬、平塚は本学の招聘教授として来島、2ヶ月間講義、実験指導のかたわら著者の1人島袋とともに同島各地の銹菌類の採集調査を行つた。平塚は同年6月下旬帰国したが、その後は島袋によつて沖縄本島のみならず、久米島、宮古島などにおける採集調査がつづけられた。奄美大島産の銹菌類については保虎太郎氏の採

集品約20個にもとづいて公表されたのみであつたが、昨年末、新納義馬君によつて多数の同島産銹菌類が採集され著者らに提供された。

本報文は、琉球諸島、即ち、奄美群島、沖縄群島、宮古群島および八重山群島において採集された銹菌類の種類を検討せる結果を発表したもので、著者らが近い将来公表するべく企図している「琉球諸島銹菌類フロラに関する研究」の前篇とも見做さるべきものである。本研究の概要はつぎの如くである。

(1) 琉球諸島所産の銹菌類として、層生銹菌科 (Melampsoraceae) に属する9属、32種、柄生銹菌科 (Pucciniaceae) に属する15属、109種ならびに不完全銹菌類 (Uredinales Imperfecti) に属する2属18種、計26属、159種を列挙した。

(2) 新種として命名記載した種類は、*Hamaspora okinawensis* Hiratsuka, f. (III. ホザキイチゴに寄生)、*Puccinia Caricis-Boottianae* Hiratsuka, f. (O, I. ツワブキ; II, III. コゴメスゲに寄生) および *Uredo thermopsidicola* Hiratsuka, f. (II. クソエンドウに寄生) の3種であり、新組合せの学名を与えたものは、*Didymoporella lemanensis* (DoIDGE) Hiratsuka, f. の1種である。

(3) 日本列島においてはじめて発見採集された種類は、*Crossopora Antidesmae-dioicae* (Syd.) Arthur et Cummins (II, (III). ヤマヒハツに寄生)、*Uromyces Baeumlerianus* Bubák (II, III. コゴメハギに寄生) および *Uredo psychotricola* Hennings (リュウキュウアオキに寄生) の3種である。

(4) 琉球諸島において今回はじめて産することの明かとなつた種類は、前掲の *Hamaspora okinawensis*, *Uredo thermopsidicola*, *Crossopora Antidesmae-dioicae*, *Uromyces Baeumlerianus* および *Uredo psychotricola* の5種を除けば、*Uredinopsis* 属1種、*Milesina* 属1種、*Pucciniastrum* 属2種、*Crossopora* 属1種、*Phakopsora* 属2種、*Coleopucciniella* 属1種、*Coleosporium* 属2種、*Kuchneola* 属1種、*Maravalia* 属1種、*Gymnosporangium* 属1種、*Xenostele* 属1種、*Uromyces* 属7種、*Puccinia* 属19種、*Aecidium* 属7種および *Uredo* 属2種で、総計15属49種である。