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Auctoribus

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(伊藤誠哉・村山大記)

118. *Synchytrium anomalum* SCHRÖT. in COHN Beitr. z. Biol. I, p. 15, pl. I, fig. 5-7, 1870—FARLOW, Bot. Gaz. X, p. 241, 1885—FISCHER, Pilze Deut. IV, p. 59, 1892—v. GUTTENBERG, Jahrb. wiss. Bot. XLVI, p. 466, pl. XIII-XIV, fig. 11-15, 1909—MAGNUS, Pilze von Tirol, p. 14, 1905—v. MINDEN, Krypt. Fl. Mark Brand. V, p. 303, 1911—SACC. Syll. VII, p. 289—TOBLER, Synchytr. p. 55, 1913.

Hab. in foliis vivis *Adoxae Moschatellinae* L. (Rempuku-so) Sapporo, Prov. Ishikari (Matsuji HARA, Maio 1942).

New to Japan.

119. *Synchytrium Potentillae* (SCHRÖT.) LAGERHEIM, Hedw. 1889, p. 109—v. MINDEN, Krypt. Fl. Mark Brand. V, p. 296, 1911—TOBLER, Synchytr. p. 49, fig. 62, 1913.

Synchytrium Myosotidis KÜHN var. *Potentillae* SCHRÖT. in COHN Beitr. z. Biol. I, p. 48, 1870.

S. Myosotidis var. *Dryadis* THOMAS, Bot. Centralbl. II, p. 763, 1880.

S. cupulatum THOMAS, Bot. Centralbl. XXIX, p. 19, 1887—FISCHER, Pilze Deut. IV, p. 54, 1892—RYTZ, Centralbl. Bakt. XVI, p. 511, 1906; XVIII, p. 822, fig. 20, 1907.

Hab. in foliis caulibusque vivis *Potentillae Freynianae* BORN. (Mitsubatsuchiguri) Rokugô, Prov. Ugo (Matsuji HARA, 10 Aug. 1942); in Monte Futamata, Prov. Shimotsuke (Matsuji HARA, 12 Julio 1942).

New to Japan.

120. *Phytophthora macrospora* (SACC.) ITO et TANAKA, Ann. Phytopath. Soc. Japan, X, p. 138, fig. 1-7, 1940, nom. nov.

Sclerospora macrospora SACC. Hedw. XXIX, p. 155, 1890; Syll. IX, p. 342, 1891—BERL. Monogr. Peronospor. p. 148, 1903—SHIRAI, List, II, p. 601, 1917; III, p. 353, 1927—YAMADA, in MIYABE Festschr. p. 381, 2 pls. 1911.

S. Kriegeriana P. MAGN. Verh. Ges. Deut. Nat. u. Aerzte, 67; Vers. Lübeck, p. 100, 1895—SACC. & SYD. in SACC. Syll. XIV, p. 461, 1899.

S. Oryzae BRIZI, La Peronospora del Riss, in Nature, X, p. 168, 1919—TROTT. in SACC. Syll. XXIV, p. 65, 1926—SAWADA, Descrip. Catal. Formosan Fungi, III, p. 45, pl. IV, fig. 1-4, 1927—S. ITO, Mycological Flora of Japan, I, p. 151, fig. 56 (1), 1936.

Phytophthora Oryzae HARA, 'Ine no Byogai' (Diseases of Rice-plant), p. 57, 1939.

Hab. in foliis vivis *Agropyri semicostati* NEES (Kamojigusa), *Agrostidis palustris* HUDS. (Konukagusa), *Alopecuri agrestis* L. (No-suzumenô-teppo), *Avenae sativae* L. (Makarasumugi), *Arundinellae hirtae* KOIDZ. var. *ciliatae* KOIDZ. (Toda-shiba), *Calamagrostidis arundinaceae* ROTH var. *sciuroidis* HACK. (Saitôgaya), *Echinochloae Crus-galli* BEAUV. subsp. *submuticae* HONDA var. *typicae* HONDA (Nobie), *Eragrostidis ferrugineae* BEAUV. (Kazekusa), *E. Niwahokori* HONDA (Niwahokori), *Hordei sativi* JESS. (Ômugi), *Glyceriae acutiflorae* TORR. (Mutsuoregusa), *Imperatae cylindricae* BEAUV. var. *Koenigii* HONDA (Chigaya), *Leersiae japonicae* MAKINO (Ashikaki), *Miscanthi sinensis* ANDERS. (Susuki), *Oryzae sativae* L. (Ine), *Panici bisulcati* THUNB. (Nukakibi), *Penniseti purpurascens* MAKINO (Chikarashiba), *Phalaridis arundinaceae* L. (Kusayoshi), *Phragmitidis longivulvis* STEUD. (Yoshi), *Poa nipponicae* KOIDZ. (Ôichigo-tsunagi), *Rottboelliae japonicae* HONDA (Ushinoshippe), *Sacciopsisidis oryzae* HONDA (Numerigusa), *Syntherismae sanguinalis* DULAC. var. *ciliaris* HONDA (Mehishiba), *Tritici vulgaris* L. (Komugi) et *Zae Maydis* L. (Tômorokoshi).

Distrib. Hokkaido, Honshu, Formosa.

121. *Plasmopara (Euplasmopara) Nakanô* ITO et MURAYAMA, sp. nov.

Caespitulis hypophyllis, sparsis, albidis, mollibus, dein totum folium occupantibus; conidiophoris plurimis e stomatibus exeuntibus, 87-280 μ altis, stipite 1/2-3/4 totius altitudinis efficienti, 57-224 μ longo, 7-13 μ crasso, ramulis latioribus, plerumque trifidis vel interdum bifidis, ad apicem in ramulos 2-4 divisus, ramulis ultimis pertenuibus, 6-16 μ longis; conidiis globosis, ovoideis vel ellipsoideis, apice minute papillatis, 12.8-25 $\times$ 12.8-19.2 μ ; oosporis ignotis.

Hab. in foliis vivis *Corydalis incisae* PERS. (Murasaki-keman). Ginkakuji, Kyoto, Prov. Yamashiro, (Tomio NAKANO, 28 Apr. 1939—*typus*).

Distrib. Honshu.

This species differs from *Plasmopara alpina* in its narrower conidiophores as well as longer ultimate branchlets, and from *Pl. pygmaea* in the mode of branching of the conidiophores.

122. *Plasmopara (Rhysotheca) Harae* ITO et MURAYAMA, sp. nov.

Maculis in foliis, pallide lutescentibus, nervis limitatis, angulatis, caespitulis hypophyllis, albidis, plus minusve densis, floccosis insidentibus; conidiophoris singulis vel plurimis e stomatibus exeuntibus, gracilibus, $260-568\mu$ altis, superne monopodice ramosis, sub apice ramos 3-6 gerentibus, stipite $1/2-2/3$ totius altitudinis efficienti, $6-10\mu$ crasso, basi leviter incrassato, ramis laxe ramosis, longis, ramulis ultimis, frequenter trifurcatis vel interdum bifurcatis, conico-subulatis, $5-17\mu$ longis, leviter curvatis; conidiis late ellipsoideis, ovatis vel ellipsoideis, hyalinis, apice papilla depressa praeditis, $16-20 \times 13-16\mu$; oosporis ignotis.

Hab. in foliis vivis *Cardiandrae alternifoliae* SIEB. et ZUCC. (Kusa-ajisai) Monte Ontake, Prov. Musashi (Matsuji HARA, 24 Julio 1942—*typus*).

Distrib. Honshu.

123. *Plasmopara (Rhysotheca) Phrymae* ITO et HARA, sp. nov.

Maculis foliiculis, pallide viridis, dein obscure brunneis, nervulis foliorum limitatis, angularibus; caespitulis hypophyllis, griseo-albis, densiusculis; conidiophoris singulis vel plurimis e stomatibus exeuntibus, gracilibus, $260-416\mu$ altis, superne monopodice ramosis, sub apice ramos 3-5 gerentibus, patentibus, stipite $2/3-4/5$ totius altitudinis efficienti, $5-10\mu$ crasso, ramis primariis longis, secundariis plerumque breviusculis, ramulis ultimis plerumque bifurcatis vel interdum trifurcatis, $5-20\mu$ longis; conidiis ellipsoideis vel ovoideis, hyalinis, $17-28 \times 14-22\mu$; oosporis ignotis.

Hab. in foliis vivis *Phrymae leptostachyae* L. (Haedokuso) Maruyama prope Sapporo, Prov. Ishikari (Matsuji HARA, 22 Aug. 1942—*typus*).

Distrib. Hokkaido.

124. *Peronospora iwatensis* ITO et MURAYAMA, sp. nov.

Caespitulis hypophyllis, griseo-albis, plus minusve densiusculis, totum tergum foliorum tegentibus; conidiophoris singulis vel plurimis e stomatibus exeuntibus, $190-370\mu$, trunco $1/2-2/3$ totius altitudinis efficienti, $5-13\mu$ crasso, ramis 3-6-ies dichotome ramosis, ramulis ultimis fere rectangulis, arcuatis vel leviter sigmatim curvatis, $5-28\mu$ longis; conidiis ellipsoideis vel globosis, leviter flavo-brunneis, $25-35 \times 20-29\mu$; oosporis creberrimis in foliis marcidis, globosis, $21-32\mu$ diam., episporio flavo, levi, leviter rugoso, $3-3.5\mu$ crasso tectis; oogoniis forma irregularibus, $35-45\mu$ diam.

Hab. in foliis vivis *Trautvetteriae japonicae* SIEB. et ZUCC. (Momiji-karamatsu) in Monte Iwate, Prov. Rikuchu (R. KURATA, 11 Julio 1935—*typus*).

Distrib. Honshu.

125. *Peronospora Takahashii* ITO, sp. nov.

Caespitulis mollibus, griseo-brunneis, tergum foliorum nonnulla parte sub-

tegentibus; conidiophoris singulis vel plurimis e stromatibus exeuntibus, 180–350 μ altis, trunco $1/3$ – $1/2$ totius altitudinis efficienti, 5–7 μ crasso; ramis 3–6-ies dichotome ramosis, leviter curvatis, furcis terminalibus, rectangulis, rectis vel leviter curvatis, 2.5–25 μ longis; conidiis paene globosis vel late ellipsoideis, flavidis, 17–26 $\times$ 16–26 μ ; oosporis ignotis.

Hab. in foliis vivis *Cochleariae oblongifoliae* DC. (Tomoshiri-so) Shibetoro, Insula Etrofu, Kurile (Yoshio TAKAHASHI, 14, Sept. 1940—*typus*).

The shorter conidiophores with somewhat straight terminal branchlets and the smaller and globular conidia of this fungus show its distinctness from *Peronospora Cochleariae* GÄUM. on *Cochlearia danica* L. in Denmark, and also from typical *Peronospora parasitica* in strict sence.

126. *Peronospora Ibarakii* ITO et MURAYAMA, sp. nov.

Caespitulis hypophyllis, albidis, mollibus, dein totum folium occupantibus; conidiophoris singulis vel plurimis e stomatibus erumpentibus, 410–500 μ altis, trunco $1/2$ – $2/3$ totius altitudinis efficienti, 6–12 μ crasso, basi leviter incrassato, ramis 3–5-ies dichotome ramosis, ramulis ultimis rectangulis, leviter curvatis vel interdum rectis, 5–18 μ longis; conidiis ovatis, late ellipsoideis vel globosis, hyalinis, 16–24 $\times$ 14–19 μ ; oosporis ignotis.

Hab. in foliis vivis *Filipendulae kamtschaticae* MAXIM. (Oni-shimotsuke) Hariusu, Prov. Shiribeshi (Yasuo IBARAKI, 7 Oct. 1942—*typus*).

Distrib. Hokkaido.

127. *Peronospora Astragali* SYDOW in GÄUMANN, Beitr. Krypt. Fl. Schw. V, 4, p. 188, fig. 98 (2), 109 (5), 110 (5), 1923.

Hab. in foliis vivis *Astragali Schelichowii* TURCZ. (Karafuto-momenzuru) Konuma, Saghalin (Ujimoto KIMOTO, 21 Sept. 1935).

New to Japan.

128. *Peronospora Swinglei* ELLIS et KELLERMANN Journ. Myc. III, p. 104, 1887—GÄUM. Beitr. Krypt. Fl. Schw. V, 4, p. 138, fig. 68 (4), 69 (1), 70 (1), 71 (1), 1923—SACC. Syll. IX, p. 344.

Hab. in foliis vivis *Salviae plebeiae* R. BR. (Yukimiso) Kashima, Prov. Hizen (Kiichi YOSHINO, 23 Apr. 1905).

New to Japan.

129. *Pernospora Akatsukae* ITO et MURAYAMA, sp. nov.

Caespitulis hypophyllis vel subinde etiam epiphyllis, laxis, altis, partem magnam folii vel subinde etiam totum folium occupantibus, griseoviolascentibus; conidiophoris singulis vel plurimis e stomatibus exeuntibus, 300–690 μ altis, superne 4–8-ies dichotome ramosis, trunco $1/2$ – $3/4$ totius altitudinis efficienti,

7–13 μ crasso, basi leviter incrassato, ramis paene rectis vel curvatis, ramulis ultimis interdum trifurcatis, rectangulo-divaricatis vel arcuatis, validis, 9–25 μ longis; conidiis ellipsoideis, obovatis vel oblongis, pallide violascentibus, 22–47 $\times$ 15–26 μ , media 36.42 $\times$ 20.85 μ ; oosporis creberrimis in parenchymate foliorum marcidiorum, globosis, 21–35 μ diam., episporio crasso, flavo-brunneo, levi, leviter rugoso tectis.

Hab. in foliis vivis *Plantaginis majoris* L. var. *asiaticae* DECNE. (Ôbako) Sapporo, Prov. Ishikari (Kôzô AKATSUKA, 15 Junio 1939—*typus*, Daiki MURAYAMA, 25 Junio et 20 Aug. 1939).

Distrib. Hokkaido.

130. *Ustilago minima* ARTHUR, Bull. Iowa Agr. Coll. Dept. Bot. 1884, p. 172—CLINTON, Proc. Boston Soc. Nat. Hist. XXXI, p. 337, 1904; N. Am. Fl. VII, p. 5, 1906—SACC. Syll. VII, p. 479.

Hab. in inflorescentiis *Stipae splendidis* TRIN. (Rakuda-gaya) Konto, Manchuria (Misao TATEWAKI, 15 Sept. 1938).

New addition.

131. *Ustilago Scorzonerae* (ALBERT. & SCHWEIN.) SCHRÖT. Pilze Schles. I, p. 274, 1887—BUBÁK, Pilze Böhm. II, p. 24, 1916—LIND, Danish Fungi, p. 262, 1913—LIRO, Ustil. Finn. I, p. 60, 1924—OUD. Rev. Champ. I, p. 603, 1893—SACC. Syll. VII, p. 478—SCHELLENBERG, Brand. Schweiz, p. 48, 1911.

Hab. in floribus *Scorzonerae rebunensis* TATEWAKI et KITAMURA (Himefutanamiso) Sapporo, Prov. Ishikari (cult.) (Yoshihiko TOCHINAI, 21 Maio 1940).

New to Japan.

132. *Melampsora Abietis-Populi* IMAI, sp. nov.

Spermogoniis hypophyllis, conspicuis, sparsis, numerosis, minutis, subrotundatis, primo flavo-aurantiacis, dein obscure brunneis, in sectione conspicuis, subcuticularibus, lenticularibus vel compresso-conoideis, 150–225 μ latis, 40–100 μ altis; spermatophoris simplicibus, septatis, obclavatis; spermatiis subellipsoideis, oblongis vel oblongo-ovatis, 4–6.5 $\times$ 2–3.2 μ , levibus, hyalinis.

Aecidiis (Gaeoma) hypophyllis, sparsis, in series dispositis, oblongis vel linearibus, 3–5 mm longis, 0.5–0.8 mm latis, subepidermalibus, mox nudis, pulverulentis, flavo-aurantiacis, epidermide fissa subconspicuis; aecidiosporis globosis, subglobosis, obovatis vel late ellipsoideis, dense verruculosi, aurantiaci, 20–32.5 $\times$ 17.5–27 μ , episporio hyalino, 2–3.5 μ crasso.

Soris uredosporiferis hypophyllis, maculis rotundatis, flavo-brunneis vel brunneis insidentibus, sparsis, rotundatis, 0.2–1 mm diam., mox nudis, epidermide fissa inconspicuis, pulverulentis, flavo-aurantiacis; paraphysibus intermixtis, capitatis, hyalinis, 25–65 $\times$ 12.5–35 μ apice usque 7.5 μ incrassatis; uredosporis

ellipsoideis, oblongis vel pyriformibus, lateraliter leviter complanatis, verrucoso-echinulatis, flavidis $25-35 \times 12.5-20 \mu$, episporio hyalino, $1.5-2 \mu$ crasso.

Soris teleutosporiferis hypophyllis, maculis brunneis vel obscure brunneis insidentibus, minutis, sparsis, saepe confluentibus, irregulariter rotundatis, $0.3-0.6$ mm, interdum usque 2 mm diam., subpulvinatis, rufobrunneis, dein obscure brunneis, subepidermalibus; teleutosporis prismatis, levibus, flavo-brunneis, $32-45 \times 7-12 \mu$, episporio tenui, ca. 1μ crasso, superne leniter incrassato.

Hab. 0, I. in acubus *Abietis Mayrianae* MIYABE et KUDO (Ao-todomatsu); II, III. in foliis *Populis nigrae* L. var. *italicae* DU ROI. (Seiyo-hakoyanagi), Hokkaido.

Successful cultures were carried out in Petri dishes by IMAI with aeciospores from *Abies Mayriana* sown on *Populus nigra* var. *italica*.

133. *Coleosporium Pertyae* MIURA, in Ito, Mycological Flora of Japan, II, (2), p. 218, 1938, nom. seminud.

Soris uredosporiferis hypophyllis, maculis $2-3$ mm diam., rotundatis vel ellipsoideis insidentibus, minutis, aurantiacis; uredosporis elongato-ellipsoideis vel ellipsoideis, rarius globosis, verruculosis, $26-37 \times 14-22 \mu$, episporio hyalino.

Status teleutosporeae ignotus.

Hab. in foliis *Pertyae glabrescentis* SCH. BIP. = *P. scandentis* MAXIM. (Nagabano-kôyabôki).

Distrib. Honshu.

134. *Skierka Toddaliae* (SYDOW) HIRATSUKA, f., comb. nov.

Aecidium Toddaliae PETCH, Ann. Roy. Bot. Gard. Peradeniya, IV, p. 303, 1909.

Uredo Toddaliae PETCH, in SYDOW, Fungi Exot. Exs. no. 69, 1913.

Ctenoderma Toddaliae SYDOW, Ann. Myc. XVII, p. 103, 1919—MAINS, Mycol. XXXI, p. 188, fig. 8, 1939.

Hab. in foliis vivis *Toddaliae asiaticae* LAM. (Sarukake-mikan) Loochoo.

135. *Skierka Nephelii* (SAWADA) ITO et MURAYAMA, comb. nov.

Uredo Nephelii SAWADA, Trans. Nat. Hist. Soc. Formosa, XXXIII, p. 33, 1943 (nom. seminud.).

Status uredosporae (*Ctenoderma*).

Soris uredosporiferis hypophyllis, maculis minutis flavo-brunneis vel brunneis insidentibus, sparsis, interdum confluentibus, minutis, rotundatis, diu epidermidē tectis, flavo-brunneis vel brunneis; uredosporis ovatis, ellipsoideis vel oblongis, cellulis flavidulis vel flavidis, $38-48 \times 12-18 \mu$, episporio ca. 2μ crasso, membrana exteriorē, hyalina, gelatinosa, aculeis brevibus crassis laxè aequaliterque instructis, $41-55 \times 17-34 \mu$, poris germinationis obscuris.

Status teleutosporae ignotus.

Hab. in foliis vivis *Litchi chinensis* SONN.=*Nephelii Litchi* L. (reishi) Formosa.

136. *Uropyxis arisanensis* (HIRATSUKA, f. et HASHIOKA) ITO et MURAYAMA, comb. nov.

Puccinia arisanensis HIRATSUKA, f. et HASHIOKA, Bot. Mag. Tokyo, LV, p. 270, 1941.

Hab. in foliis vivis *Melothriae mucronatae* COGN. (Kuromi-no-okinawa-suzumeuri) Formosa.

137. *Haploravenelia formosana* (SYDOW) ITO, comb. nov.

Revenelia formosana SYDOW, Monogr. Ured. III, p. 245, 1914.

Hab. in foliis vivis *Acaciae Farnesianae* WILLD. (Kingôkwan) Formosa.

Accepting the conception to segregate the genus *Haploravenelia* from old *Ravenelia* by the uniloculate teleutospores, all our species were transferred to it.

138. *Haploravenelia Millettiae* (HIRATSUKA, f. et HASHIOKA) ITO, comb. nov.

Uredo Millettiae SAWADA, Descrip. Catal. Formosan Fungi; V, p. 55, pl. III, fig. 10-12, 1931.

Ravenelia Millettiae HIRATSUKA, f. et HASHIOKA, Bot. Mag. Tokyo, XLVIII, p. 236, 1934.

Hab. in foliis caulibusque *Millettiae reticulatae* BENTH. (Murasaki-natsufuji) Formosa.

139. *Haploravenelia Hobsoni* (COOKE) ITO, comb. nov.

Revenelia stictica BERK. et BROOME, Jour. Linn. Soc. Bot. XIV, p. 93, 1875, p. p.

R. Hobsoni COOKE, Jour. Roy. Micr. Soc. III, p. 386, pl. XI, fig. 4, 1880—SACC. Syll. VII, p. 772—SYDOW, Monogr. Ured. III, p. 287, pl. XI, fig. 121, 1914.

Hab. in foliis vivis *Pongamiae glabrae* VENT. (Kuroyona) Loochoo, Formosa.

140. *Haploravenelia tephrosiicola* (HIRATSUKA, f.) ITO, comb. nov.

Uredo tephrosiicola P. HENN. Hedw. XLIII, p. 163, 1904—SACC. Syll. XVII, p. 446—SYDOW, Monogr. Ured. IV, p. 485, 1924.

Revenelia tephrosiicola HIRATSUKA, f., Jour. Jap. Bot. XIII, p. 249, 1937.

Hab. in foliis vivis *Tephrosiae candidae* DC. (Namban-kusafuji) Formosa.

141. *Haploravenelia brevispora* (HIRATSUKA, f. et HASHIOKA) ITO, comb. nov.

Ravenelia brevispora HIRATSUKA, f. et HASHIOKA, Bot. Mag. Tokyo, XLIX, p. 522, 1935.

Hab. in foliis vivis *Phyllanthi reticulati* POIR. (Taiwan-kobannoki) Formosa.

142. *Uromyces dispersus* HIRATSUKA, f., nom. nov.

Aecidium dispersum DIETEL, Ann. Mycol. XII, p. 85, 1914—SACC. Syll. XXIII, p. 900.

A. Apios MIYABE, in sched.

?*A. Inouyei* (non P. HENN.) SYDOW, Monogr. Ured. IV, p. 210, 1923.

Uromyces appendiculatus (non LINK) HIRATSUKA, Jour. Jap. Bot. XIII, p. 734, 1937, p. p.

Status aecidiosporiferus = *Aecidium dispersum* DIETEL.

Soris uredosporiferis amphigenis, minutis, sparsis, mox nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis vel obovatis, echinulatis, flavo-brunneis, $25-32 \times 20-27 \mu$; episporio ca. 2μ crasso, poris germinationis aequatorialibus vel subaequatorialibus 2 vel 3 instructis; soris teleutosporiferis conformibus, brunneis vel atro-brunneis; teleutosporis subglobosis, ovatis vel ellipsoideis, utrinque rotundatis, vel basi attenuatis, papilla hyalina vel subhyalina majuscula hemisphaerica usque 5μ alta praeditis, levibus, brunneis vel castaneo-brunneis, $25-40 \times 17-26 \mu$; episporio $1.5-3 \mu$ crasso; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis *Apios Fortunei* MAXIM. (Hodo-imo) Hokkaido, Honshu, Shikoku, Kiushu.

143. *Puccinia Asperellae-japonicae* HARA, Trans. Agr. Soc. Shizuoka Pref., No. 286, p. 47, 1 fig. 1921, nom. seminud.

Soris teleutosporiferis hypophyllis, rotundatis, ellipticis vel linearibus, 1-2 mm longis, ca. 0.5 mm latis, interdum confluentibus, primo epidermide tectis, dein nudis, subpulvinatis, pulverulentis, castaneo-brunneis vel obscure brunneis; teleutosporis variabilibus, oblongo-fusiformibus, fusiformibus, oblongis vel ellipsoideis, interdum leniter curvatis, apice conico-attenuatis vel processibus 2-3 interdum 5 coronatis, $5-17 \mu$ longis, medio non vel vix constrictis, basi attenuatis, levibus, flavidis ad castaneo-brunneis, $33-73 \times 12-24 \mu$, pedicello tenui, hyalino, apice brunneolo, persistenti, usque 150μ longo; mesosporis immixtis.

Hab. in foliis vivis *Hystricis Hackeli* HONDA = *Asperellae japonicae* HACK. (Iwatakeso) Honshu.

144. *Puccinia kiusiana* HIRATSUKA, f., sp. nov.

Soris uredosporiferis epiphyllis, sparsis vel aggregatis, minutis, rotundatis,

ellipticis vel oblongis, subpulverulentis, brunneis; uredosporis ellipsoideis, oblongis vel obovatis, echinulatis, flavo-brunneis vel brunneis, $22-30 \times 17-20 \mu$, episporio ca. 1.5μ crasso, poris germinationis 2 aequatorialibus praeditis; soris teleutosporiferis plerumque epiphyllis, rarius cauliculis, mox nudis, minutis, ellipticis, oblongis vel linearibus, usque 1.5 mm longis, subpulvinatis, atris; teleutosporis clavatis vel oblongis, apice rotundatis vel conico-attenuatis, incrassatis ($7-18 \mu$), medio vix vel parum constrictis, basi attenuatis, levibus, flavo-brunneis, $32-50 \times 12-20 \mu$; pedicello hyalino, usque 40μ longo.

Hab. in foliis vivis *Hystrixis Hackeli* HONDA = *Asperellae japonicae* HACK. (Iwatakesô) in Monte Hikosan, Prov. Buzen (B. TOBINAGA, 31 Oct. 1936—*typus*; T. KATSUKI, 5 Nov. 1939).

145. *Puccinia lycoridicola* HIRATSUKA, f. et HARA, Trans. Agr. Soc. Shizuoka Pref. XXXV, p. 72, fig. 1, 2, 1931, nom. seminud.

Soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis discoloratis insidentibus, majoribus, ellipticis vel oblongis, $2-9 \text{ mm}$ longis, $1-5 \text{ mm}$ latis, sparsis vel aggregatis, saepe confluentibus, epidermide plumbea diutius tectis, dein nudis, pulverulentis, castaneobrunneis vel atro-brunneis; teleutosporis late ellipsoideis vel oblongis, utrinque rotundatis, apice non vel parum incrassatis ($3-4 \mu$), medio constrictis, striolis longitudinalibus haud raro interruptis et interdum in ordines verruculorum ornatis, interdum vix reticulatis, flavo-brunneis vel castaneo-brunneis, $25-44 \times 18-28 \mu$, episporio ca. 2μ crasso, poris germinationis cellulae superioris ad apicem, inferioris sub vel prope septo positae, papilla hyalina, minuta vel interdum deficiente praeditae; pedicello hyalino, persistenti, brevi, saepe usque 50μ longo; sporis irregulariter interdum evolutis.

Hab. in foliis vivis *Lycoridis radiatae* HERB. (Higanbana), *L. sanguineae* MAXIM. (Kitsune-no-kamitori) et *L. squamigerae* MAXIM. (Natsu-zuisen) Honshu.

146. *Puccinia shikotsuensis* Ito, sp. nov.

Soris uredosporiferis hypophyllis, minutis, rotundatis, $0.3-0.8 \text{ mm}$ diam., sparsis vel aggregatis, pulverulentis, ferrugineis; uredosporis globosis, ovatis vel ellipsoideis, echinulatis, flavidis vel subhyalinis, $26-32 \times 22-26 \mu$, episporio $1.5-2 \mu$ crasso, poris germinationis inconspicuis; soris teleutosporiferis hypophyllis, raro epiphyllis, minutis, rotundatis, $0.3-0.5 \text{ mm}$, rarius usque 1 mm diam., sparsis vel aggregatis, mox nudis, subcompactis, griseis vel atris; teleutosporis late ellipsoideis vel subglobosis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, dense minuteque verruculosi, castaneo-brunneis, $33-50 \times 26-32 \mu$, episporio $1.5-2 \mu$ crasso, poris germinationis cellulae superioris plerumque ad apicem, inferioris sub septo positae, papilla deficiente vel plana, inconspicua praeditae; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis *Polygoni Weyrichii* FR. SCHM. (Urajirotade, Keiwatade) Odasan, Saghalin (Naohide HIRATSUKA, Satoru IWADARE, Masaji NAGAI et Shirô ARAKI, 17 Julio 1927); Shikotsu, Prov. Iburi (Naohide HIRATSUKA et Kôtarô SHIMAMURA, Oct. 1929—*typus*); in Monte Koma, Prov. Oshima (Naohide HIRATSUKA, 28, Sept. 1924); Insula Rishiri, Prov. Kitami (Mutsuo TERUI, 15 Julio 1930).

The present species differs from other species on the same host-plant by the larger and densely verruculose teleutospores.

147. *Puccinia Clematidis-Hayatae* SAWADA, Jour. Taihoku Soc. Agr. & For. VII, p. 32, 1943, nom. seminud.

Soris teleutosporiferis hypophyllis, maculis rotundatis primo brunneis vel obscure brunneis, dein atro-brunneis, ad nervos foliorum elongatis usque 7 mm longis insidentibus, sparsis, 2–3 mm diam., pulvinatis, obscure flavidulo-brunneis, primo epidermide tectis, dein nudis; teleutosporis fusiformibus vel obovato-fusiformibus, utrinque rotundatis, medio leniter constrictis, levibus, pallidis, $34\text{--}60 \times 8\text{--}13\mu$, episporio tenui; pedicello hyalino, brevi, interdum usque 20μ longo.

Hab. in foliis *Clematidis Henryi* OLIV. var. *leptophyllae* HAYATA = *C. Hayatae* KUDÔ et MASAMUNE (Usuba-hanshōzuru) Formosa.

148. *Puccinia nokoensis* SAWADA, Jour. Taihoku Soc. Agr. & For. VII, p. 36, 1943, nom. seminud.

Soris uredosporiferis hypophyllis, sparsis vel paucis aggregatis, minutis, rotundatis vel ellipticis, primo epidermide tectis, dein ea fissa cinctis, subpulvinatis, subpulverulentis, flavo-brunneis; uredosporis subglobosis, ovatis vel ovato-oblongis, aculeato-echinulatis, flavo-brunneis vel brunneis, $27\text{--}42 \times 21\text{--}26\mu$ (raro usque 31μ latis), episporio $2.5\text{--}3\mu$ crasso, apice $4\text{--}10\mu$, plerumque 8μ incrassatis, poris germinationis 3 rarius 2 vel 4 aequatorialibus instructis, papilla hyalina usque 5μ alta praeditis; soris teleutosporiferis conformibus, pulverulentis, late ellipsoideis vel obovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio leniter constrictis, levibus, rarius leniter undulatis, brunneis vel castaneo-brunneis, $35\text{--}60 \times 26\text{--}36\mu$, episporio $3.5\text{--}4.5\mu$ crasso, poris germinationis cellulae superioris plerumque ad apicem, inferioris sub septo vel $1/3$ inferiore positae, papilla pallide brunnea praeditis, pedicello hyalino, usque 31μ longo, interdum oblique inserto; mesosporis immixtis.

Hab. in foliis vivis *Angelicae morrisonicolae* HAYATA (Niitaka-shishiudo) Formosa.

149. *Puccinia Tokubuchii* Ito, sp. nov.

Soris teleutosporiferis epiphyllis, maculis discoloribus insidentibus, minutis,

rotundatis, 0.2–0.4 mm diam., in greges minutos et rotundatos 1–2.5 mm diam. densissime dispositis, diu epidermide tectis, dein ea fissa cinctis, pulverulentis, castaneo-brunneis; teleutosporis ellipsoideis vel fusiformibus, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, levibus, castaneo-brunneis, $37\text{--}58 \times 19\text{--}26\mu$, episporio ca. 2.5μ crasso, poris germinationis cellulae superioris ad apicem, inferioris in parte basali spora vel prope pedicellum praeditis, papilla hyalina usque 4μ alta instructis; pedicello hyalino, deciduo, usque 64μ longo; mesosporis paucis immixtis.

Hab. in foliis vivis *Patriniae gibbosae* MAXIM. (Maruba-kinreikwa) Esashi, Prov. Oshima (Yeijirô TOKUBUCHI, 6 Aug. 1888—*typus*).

This species is characterized by the position of the lower germ-pore.

150. *Xenostele Sakamotoi* (HIRATSUKA, f. et YOSHINAGA) ITO et MURAYAMA, comb. nov.

Puccinia Sakamotoi HIRATS., f. et YOSH. Bot. Mag. Tokyo, LVI, p. 377, 1942.

Hab. in foliis vivis *Distylii racemosi* SIEB. et ZUCC. (Isu) Shikoku.

151. *Uredo Panici-plicati* SAWADA, Jour. Taihoku Soc. Agr. & For. VII, p. 42, 1943, nom. seminud.

Soris amphigenis, sparsis, 0.5–1.3 mm diam., vel seriatim dispositis, usque 15 mm longis, epidermide tectis, dein nudis, pulverulentis, flavobrunneis; sporis late ellipsoideis, obovatis vel obovato-oblongis, laxe verrucosis, brunneis, $31\text{--}44 \times 26\text{--}28\mu$, episporio tenui.

Hab. in foliis vivis *Setariae palmifoliae* STAPP = *Panici plicati* LAM. (Sasakibi) Formosa.

152. *Uredo Caricis-incisae* ITO, nom. nov.

Puccinia Caricis-incisae SYDOW, Ann. Myc. XI, p. 105, 1913—SACC. Syll. XXIII, p. 715. (Status teleutosporae ignotus).

Hab. in foliis vivis *Caricis incisae* BOOTT. (Kawarasuge, Tanisuge) Honshu.

153. *Uredo Cyperi-rotundi* ITO, nom. nov.

Puccinia Romagnoliana (non MAIRE et SACC.) (DIETEL, Ann. Myc. VIII, p. 306, 1910—SHIRAI, List, II, p. 559, 1917; III, p. 331, 1927—YOSHINAGA & HIRATSUKA, Bot. Mag. Tokyo, XLIV, p. 643, 1930).

P. philippinensis (non SYDOW) HIRATSUKA & YOSHINAGA, Mem. Tottori Agr. Coll. III, p. 317, 1935, p. p.

Soris hypophyllis, rotundatis vel ellipticis, 0.3–0.7 mm diam, epidermide tectis, pulvinatis, brunneis; sporis ovatis vel ellipsoideis, raro globosis, aculeato-echinulatis, flavo-brunneis vel brunneis, $17\text{--}31 \times 12\text{--}21\mu$, poris germinationis 2 vel 3 superaequatorialibus praeditis.

Hab., in foliis vivis *Cyperi rotundi* L. (hamasuge) Shikoku.

154. *Uredo Sawadae* ITO, sp. nov.

Uredo Fici (non CAST.) (SHIRAI, List, II, p. 687, 1917, p.p.; III, p. 406, 1927, p.p.).

Soris hypophyllis, maculis castaneo-brunneis insidentibus, sparsis vel plus minusve aggregatis, irregulariter rotundatis vel ellipticis, 0.5–2.5 mm diam., primo epidermide tectis, dein nudis; pulverulentis, brunneis; sporis variabilibus, obovatis, oblongo-obovatis vel ellipsoideis, verruculoso-echinulatis, flavidis vel flavo-brunneis, $20-44 \times 13-28 \mu$, episporio $1-2 \mu$ crasso, poris germinationis inconspicuis.

Hab. in foliis vivis *Fici Caricae* L. (Ichijiku) Taihoku, Formosa (Kaneyoshi SAWADA, 22 Oct. 1923—*typus*, Yoshio HASHIOKA, 5 Oct. et 25 Nov. 1933).

155. *Uredo morifolia* SAWADA, Descrip. Catal. Formosan Fungi, I, p. 393, pl. X, fig. 18–20, 1919, nom. seminud. (SHIRAI, List, III, p. 407, 1927).

Uredo moricola (non P. HENN.) SAWADA, Trans. Nat. Hist. Soc. Formosa, 32, p. 133, 1917.

Soris hypophyllis, maculis brunneis insidentibus, aggregatis, primo epidermide tectis, dein nudis, castaneo-brunneis; paraphysibus nullis; sporis globosis, obovato-globosis, obovatis vel ellipsoideis, apice rotundatis, 3–4, interdum usque 7μ incrassatis, basi rotundatis vel obtusis, laxe echinulatis, flavo-brunneis vel brunneis, $18-30 \times 15-22 \mu$, episporio $0.8-1 \mu$ crasso, poris germinationis 3 praeditis.

Hab. in foliis vivis *Mori albae* L. (Maguwa) et *M. australis* GRIFF. (Shimaguwa) Formosa.

156. *Aecidium Araliae* SAWADA, Trans. Nat. Hist. Soc. Formosa, XXXIII, p. 97, 1943, nom. seminud.

Pycnidiis epiphyllis, minutis, aggregatis, atris, $117-200 \times 86-90 \mu$; aecidiis hypophyllis, maculis brunneis rotundatis 3–22 mm, interdum 35 mm diam, insidentibus, rotundatis, dense aggregatis, cupulatis, flavoaurantiacis, margine lacerato, $410-700 \mu$ diam, ca. 145μ longis; cellulis peridii firme conjunctis, polygonalibus, subhyalinis irregulariter verrucosis, $18-32 \times 15-22 \mu$, episporio ca. 2.5μ crasso; sporis globosis vel subglobosis, dense subtiliterque verruculosus, subhyalinis, $14-19 \times 12-15 \mu$, episporio ca. 1μ crasso.

Hab. in foliis vivis *Araliae Decaesneanae* HANCE (Taiwan-taranoki) et *A. elatae* SEEM. (Taranoki) Formosa, Kiushu.

157. *Aecidium Senecionis-scandentis* SAWADA, Jour. Taihoku Soc. Agr. & For. VII, p. 40, 1943, nom. seminud.

Pycnidiis epiphyllis, paucis aggregatis, brunneis; aecidiis hypophyllis,

maculis flavo-brunneis rotundatis ca. 7 mm diam. insidentibus, in greges 50–100 orbicularibus dispositis, pulvinatis, ca. 0.3 mm altis; cellulis peridii polyedricis, dense irregulariterque verrucosis, pallidis, $18-28 \times 15-21 \mu$, episporio ca. 4.5μ crasso; sporis angulato-globosis, late ellipsoideis vel ellipsoideis, laxe verruculosi, subhyalinis, $13-18 \times 13-14 \mu$.

Hab. in foliis vivis *Senecionis scandentis* BUCH-HAM. (Taikingiku) Formosa.