

日本産ヘリトリゴケ科地衣類の種類相の解明

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平成5年度、及び6年度の2年間、文部省科学研究費補助金（一般研究C）の交付を受けて「日本産ヘリトリゴケ科地衣類の種類相の解明」を行った。

日本産固着地衣類は明治以来、主に国外の研究者によって多くの種が報告されてきたため、既報告種の証拠、あるいは基準標本の大半が海外の研究機関に収蔵されており、加えて、その後我が国で研究する者が少なかったために放置されたままになっていて、その実体は一部の分類群を除いて全く不明である。

日本産固着地衣類のうちで、特に筆者の専門とするヘリトリゴケ科を中心とするレキデア型の子器をもつ分類群（ヘリトリゴケ類）の資料（標本・文献）は1972年以来収集され、充分蓄積されてきたので、これらの既存資料を基に、範型・基準標本等と充分比較検討して、ヘリトリゴケ類の分類学的再検討を行った。

今回の研究において、子器内部の構造、特に果殻の菌糸組織、子嚢の構造に重点をおいて分類し、11日本新産種を含む46属189種4変種を認めた。この内、12種については属の位置を移動する見解を新たに提唱し（新組み合わせ）、5種については新たにシノニムとした。以上のように、日本産地衣類相の解明に貢献できたものと確信する。

平成7年3月

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Inoue, M. 1994. Phytogeography of lecideoid lichens in Japan. J. Hattori Bot. Lab. No. 76: 183-195.

A revised list of Japanese species of Lecideaceae sensu Zahlbruckner
and its related taxa

Masakane INOUE

A checklist of Japanese lichens including Lecideaceae sensu Zahlbruckner was published by Sato (1965), based on literatures (Nylander 1890, Vainio 1918 & 1921, Zahlbruckner 1927 & 1921–40, etc.) and his own study. However, taxonomic knowledge of this family in a broad sense and allied taxa have been advanced in the subsequent 30 years. In the course of my work I have restudied the type and voucher specimens of the species recorded from Japan under *Lecidea* (s. lato) and its related taxa, *Bacidia*, *Blastenia*, *Bombyliospora*, *Buellia*, *Byssoloma*, *Catillaria*, *Lecanactis*, *Lopadium*, *Megalospora*, *Mycoblastus*, *Protoblastenia*, *Rhizocarpon* and *Schismatomma*.

In this paper a revised list of the known Japanese species of Lecideaceae (s. lato) is provided. More detailed treatment of those taxa will be published in separate papers.

I am particularly indebted to directors and curators of the following herbaria for sending type and authentic specimens on loan: Dr. D. H. Pfister (FH), Dr. J. Miede (G), Dr. T. Ahti and Dr. O. Vitikainen (H), Dr. J. Noguchi (KYO), Dr. H. Hertel (M), Dr. H. Kashiwadani (TNS), Dr. Lempiäinen (TUR), Dr. H. Riedl (W), Dr. Ehrendorfer (WU), Dr. R. Moberg (UPS) and Dr. R. Santesson (S).

A. Lecideoid genera (= *Lecidea* sensu Zahlbruckner and its related genera)

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M. Inoue, J. Hattori Bot. Lab., No. 56:321–330, 1984; Brodo & Hertel, Herzogia 7:493–521. 1987.

consentiens (Nyl.) Hertel, Brodo & M. Inoue in M. Inoue

var. consentiens; M. Inoue, J. Hattori Bot. Lab., No. 56:322, 1984.

var. *japonica* M. Inoue, J. Hattori Bot. Lab., No. 56:325, 1984.

pelobotryon (Wahlenb. in Ach.) Norman; M. Inoue, J. Hattori Bot. Lab., No. 56:326, 1984.

subdissentiens (Nyl.) M. Inoue & Brodo in M. Inoue, J. Hattori Bot. Lab., No. 56:328, 1984.

II. BIATORA Fr., Lich. Dianome Nova, 7–8, 1817.

berengeriana Mass., Rec. Auton. Lich. 128, 1852. Type: "Cadorino", leg. Berenger, non vidi. (new to Japan) HONSHU. Pref. Akita: Oga Peninsula (620 m, mi 21821). Additional specimens examined: Mass. exsic. no. 369, in M; Anzi Lich.-rari. Langob. exsic. no. 550, in M; Norway, Finmark, in TUR-Vain. 23197.

furfuracella (Nyl.) M. Inoue, **comb. nov.**

Basionym. *Lecidea furfuracella* Nyl., Lich. Jap. 61, 1890. Type: Japan, Honshu, Mt. Fuji, Ichigome – Oumagaeshi, leg. E. Almquist, — lectotype in S, selected here; — isolectotype in H (H-Nyl. 20479).

helvola Körb. ex Hellb.; — *Lecidea helvola* (Körb. ex Hellb.) Hedl.; M. Inoue, Mem. Natn. Sci. Mus., Tokyo 21:46, 1988.

leucosoralis (Vain.) M. Inoue, **comb. nov.**

Basionym. *Lecidea leucosoralis* Vain., Bot. Mag., Tokyo 32: 160, 1918.

Type: Japan, Honshu, Pref. Tottori, Mt. Daisen, Yasuda no.95, — holotype in TUR (H-Vain. 24215); M. Inoue, Mem. Natn. Sci. Mus., Tokyo 21:48, 1988.

meiocarpa (Nyl. ex Lamy) Arn., Verh. zool.-bot. Ges. Wien 37: 141, 1887.

— *Lecidea meiocarpa* Nyl. ex lamy, Bull. soc. Bot. France 25: 435, 1878.

Type: France, Mont-Dore, — holotype in PC (?), non vidi; Nyl., Lich. Jap. 61, 1890; Nyl., Acta Soc. Sci. Fenn. 26: 31, 1900. — *Lecidea minuta* auct. non (Schaerer) Nyl.; Sato, Cat. Lich. Jap. (ed. 2) 27, 1965.

sanguineoatra (Wulf. ex Jacquin) Tuck., Proc. Am. Acad. Arts, Sci. 1: 252, 1848. —

Lichen sanguineoater Wulf. ex Jacquin, Collect. Bot. 3: 117, 1789.

Type: Europe (?), non vidi. — *Lecidea sanguineoatra* (Wulf. ex Jacquin) Ach., Meth. Lich. 50 (1803); Nyl., Lich. Jap. 62, 1890.

subrufata (Nyl.) M. Inoue, **comb. nov.**

Basionym. *Lecidea subrufata* Nyl., Lich. Jap. 61, 1890. Type: Japan, Honshu, Mt.

Fuji, Ichigome, leg. E. Almqvist, — holotype in S; — isotype in H (H-Nyl. 20495).
sylvana Körb., Syst. Lich. Germ. 200, 1855. Type: Germany, non, vidi. — *Lecidea*
sylvana (Körb.) Th. Fr.; Nyl. Acta Soc. Sci. Fenn. 26:31, 1900.

vernalis (L.) Fr., Lich. Dianome Nova, 7–8, 1817. — *Lichen vernalis* L., Syst.

Nat. 3: 234, 1768. Type: Europe (?), non, vidi. — *Lecidea vernalis* (L.) Ach., ;
 Nyl., Lich. Jap. 61, 1890.

III. **CARBONEA** (Hertel) Hertel, Mit. Bot. Münch. 19: 441–447, 1983.

vorticosa (Flörke) Hertel, Mit. Bot. Münch. 19: 442, 1983. — *Lecidea sabuletorum*
 [L.] *vorticosa* Flörke, Ges. Nat. Fr. Berlin Mag. 2: 311, 1808. Type: Germany, non
 vidi. — *Lecidea vorticosa* (Flörke) Körb., Syst. Lich. Germ. 251, 1855; Hertel,
 Khumbu Himal 6: 316, 1977.

IV. **CECIDONIA** Triebel & Rambold, Nova Hedw. 47: 279–309, 1988.

umbonella (Nyl.) Triebel & Rambold, Nova Hedw. 47: 284, 1988. — *Lecidea*
umbonella Nyl., Flora 49: 372, 1866. Type: Schottland, Perthshire, Ben More, —
 lectotype in H (H-Nyl. 15535a). (New to Japan) HONSHU. Pref. Yamanashi, Mt.
 Kitadake (3150 m, mi 12410).

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 34: 85–88, 1989.

macula (Tayl.) Coppins & Rambold in Rambold, Bibl. Lich. 34: 85, 1989. — *Lecidea*
macula Tayl. in Mackay, Fl. Hib. 2: 115, 1836. Type: Ireland, — isotype in BM,
 non vidi. — *Lecidea instratula* Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B,
 18: 34, 1982.

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Inoue, Hikobia Suppl. 1: 162–181, 1981; Oberhollenzer & V. Wirth, Nova Hedw.
 Beih. 79: 538–595, 1984.

austera (Nyl.) P. James in Hawks., P. James & Coppins; M. Inoue, Hikobia Suppl. 1:
 164, 1981.

circumflexa (Nyl.) V. Wirth & Vězda; M. Inoue, Hikobia Suppl. 1: 165, 1981.

cyathoides (Ach.) V. Wirth & Vězda

var. *japonica* M. Inoue & P. James in M. Inoue, *Hikobia Suppl.* 1: 167, 1981.

var. *orientalis* (Zahlbr.) M. Inoue; H. Kashiwadani & M. Inoue, *Mem. Natn. Sci. Mus.* 26: 59, 1993.

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mollis (Wahlenb.) V. Wirth & Vězda; M. Inoue, *Hikobia Suppl.* 1: 168, 1981; M. Inoue, *Mem. Natn. Sci. Mus., Tokyo* 21:46, 1988.

submollis M. Inoue, *Hikobia Suppl.* 1: 170, 1981.

verruciformis M. Inoue, *Hikobia Suppl.* 1: 171, 1981.

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Hafellner, *Beih. 79 Nova Hedwigia*, 285, 1984.

crassipes Th. Fr.; M. Inoue, *Hikobia* 10: 171, 1988.

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p., — *Amygdalaria* Norm. emend Brodo & Hertel, *Herzogia* 7: 493–521, 1987, pr. p.

aeolotera (Vain.) Hertel; Hertel, *Khumbu Himal* 6: 200, 1977; M. Inoue, *Journ. Jap.*

Bot. 58: 117, 1983. — *Amygdalaria aeolotera* (Vain.) Brodo & Hertel 1987

albocaerulescens (Wulf.) Hertel

var. *albocaerulescens*; Hertel, *Khumbu Himal* 6: 205, 1977; M. Inoue, *Journ. Jap. Bot.* 58: 121, 1983; M. Inoue, *Mem. Natn. Sci. Mus., Tokyo* 21:46, 1988.

var. *polycarpiza* (Vain.) Hertel; Hertel, *Khumbu Himal* 6: 207, 1977; M. Inoue, *Journ. Jap. Bot.* 58: 124, 1983.

albuginosa (Nyl.) Asta, J. & Roux; M. Inoue, *Hikobia* 10:173, 1988.

chungii (Zahlbr.) M. Inoue, *Journ. Jap. Bot.* 58: 161, 1983.

crustulata (Ach.) Hertel; Hertel, *Khumbu Himal* 6: 210, 1977; M. Inoue, *Journ. Jap. Bot.* 58: 163, 1983.

elegantior (H. Magn.) Hertel; M. Inoue, *Journ. Jap. Bot.* 58: 166, 1983. —

Amygdalaria elegantior (H. Magn.) Brodo & Hertel 1987.

- flavocaerulescens* (Hornem.) Hertel; — *Porpidia flavocaerulescens* (Hornem.)
 Hertel & Schwab; Gowan & Ahti, Ann. Bot. Fenn. 30: 59, 1993. — *Huilia*
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- macrocarpa* (DC.) Hertel; Hertel, Khumbu Himal 6: 219, 1977; M. Inoue, Journ. Jap.
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 Ach., Vet. Ak. Handl. 127, 1795. Type: Sweden, non vidi. — *Lecidea scalaris*
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 Hoffm.; Asahina, Journ. Jap. Bot. 28: 161, 1953. — *Lecidea ostreata* (Hoffm.)
 Schaerer; Sato, Cat. Lich. Jap. (ed. 2) 27, 1965.

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- athroocarpa* (Ach.) Rambold & Pietschmann in Rambold, Bibl. Lich. 34: 240, 1989.
 — *Lecidea athroocarpa* (Ach.) Ach.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18:
 22, 1982.

XI. Japewia Tønsberg, Lichenologist 22: 205–212, 1990.

- tornoënsis* (Nyl.) Tønsberg, Lichenologist 22: 206, 1990. — *Lecidea tornoënsis* Nyl.,
 Herb. Mus. Fenn., 110, 1859. Type: Finland, Tengeliö leg. E. Nylander, —
 holotype in H (H–Nyl. 21398); — isotype in H (Herb. Fenn. Scand.); Nyl. Lich.
 Jap. 61, 1890; Nyl., Acta Soc. Sci. Fenn. 26: 31, 1900.

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advena Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 20, 1982.

atrobrunnea (Ram. ex Lam. & DC.) Schaer.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 25, 1982.

auriculata Th. Fr.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 26, 1982.

brachyspora (Th. Fr.) Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 28, 1982.

diducens Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 30, 1982.

fuscoatrata Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 33, 1982.

lactea Floerke ex Schaer.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 35, 1982.

lapicida (Ach.) Ach.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 38, 1982.

lithophila (Ach.) Ach.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 39, 1982.

plana (Lahm) Nyl.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 41, 1982.

promiscens Nyl., Flora 55: 358, 1872. Type: France, "Pyrenées, Bareges", — holotype in H-Nyl. 15927. (New to Japan) HONSHU. Pref. Nagano, Mt. Asama (2400m, mi 11338).

speirea (Ach.) Ach.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 43, 1982. — *Porpidia speirea* (Ach.) Kremph.; Hertel & Knoph, 1984.

subleucothallina M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 45, 1982.

subpaupercula M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 46, 1982.

tessellata Floerke

var. *caesia* (Anzi) Arn.; M. Inoue, J. Sci. Hiroshima Univ., ser. B, 18: 48, 1982.

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bullata Körb., Parerg. Lich. 200, 1861. Type: Poland, "am Basalt der kl. Schnee-grube in den Sudeten", leg. Körber in 1856, — topotype in W, WU (Körb. Lich. Sel. Germ. no. 252, leg. Körber in 1863); Hertel, Khumbu Himal 6: 321, 1977. — *Lecidea subtessellata* Nyl., Lich. Jap. 73, 1890. Type: Japan, Mt. Fuji, leg. E.

Almquist, — lectotype in S; isolectotype in H (H-Nyl. 16331).

carpathica Körb., Parerg. Lich. 212, 1861. Type: Czechoslovakia, "bei Eperies in Ungarn", leg. Hazslinsky, — holotype in L (910.188.726); — isotype in L (910.188.752 & 910.188.749). (New to Japan) HOKKAIDO. Shiretoko Pen., Mt. Rausu (560 m, mi 7780).

elaeochroma (Ach.) Choisy

var. *caesitia* (Vain.) M. Inoue, comb. nov.

Basionym. *Lecidea olivacea* var. *caesitia* Vain., Bot. Mag., Tokyo 35: 69, 1921. Type: Japan, Hokkaido, Akkeshi, leg. Yasuda 334, — holotype in TUR (H-Vain. 23755). — *Lecidea parasema* auct. non (Ach.) Ach.; Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 197, 1892. — *Lecidea olivacea* var. *euphoreoides* auct. non (Vain.) Vain.; Vain., Bot. Mag., Tokyo 32: 160, 1918, 35: 68, 1921. — *Lecidea spumosula* Zahlbr., Ann. Mycol. 14: 51, 1916, nom illegit. (Art. 64), non *Lecidea spumosula* Yasuda 1915 (= *Bacidia spumosula* (Yasuda) Yasuda, 1925).

enteroleucella (Nyl.) Hertel, Khumbu Himal 6: 330, 1977; M. Inoue, Mem. Natn. Sci. Mus., Tokyo 21:46, 1988.. — *Lecidea enteroleucella* Nyl., in Nyl. & Cromb., Journ. Linn. Soc. Bot. 20: 67, 1884. Type: Japan, Kyushu, Nagasaki, leg. Maingay, — isotype in FH; Nyl., Lich. Jap. 69, 1890. — *Lecidea nagasakensis* Nyl., Lich. Jap. 62, 1890. Type: Japan, Kyushu, Nagasaki, leg. Almquist, — holotype in H (H-Nyl. 20933), — isotype in S. — *Lecidea adpressula* Müll. Arg., Nuov. Giorn. Bot. Ital. 22: 126, 1891. Type: Japan, "Enoura" in July 1886, no. 153, — isotype in TNS; Yoshimura, Lichen flora Japan 180, 1974.

lacteola (Nyl.) Hertel & Leuckert, Willdenowia 5:375, 1969. — *Lecidea lacteola* Nyl., Flora 64: 180, 1881. Type: Germany, "Heidelberg, Heiliger Berg", — holotype in H (H-Nyl. 19991), vidi. (New to Japan). HONSHU. Pref. Yamagata, Mt. Gassan (1910 m, mi 10831); Pref. Nagano, Mt. Tatehina (2450 m, mi 11601).

praespersa (Nyl.) M. Inoue, comb. nov.

Basionym. *Lecidea praespersa* Nyl., Lich. Jap. 70, 1890. Type: Japan, Honshu, , Mt. Fuji "in limite arborum", leg. Almquist, — holotype in H (H-Nyl. 19995), — isotype in S; Hertel, Khumbu Himal 6: 361, 1977.

sendaiensis (Zahlbr.) M. Inoue, comb. nov.

Basionym. *Lecidea sendaiensis* Zahlbr., Ann. Mycol. 14: 52, 1916. Type: Japan,

Honshu, Pref. Miyagi, Sendai, leg. Yasuda 126, June 10, 1913, — holotype in W.
 — *Lecidea pruni* Vain., Bot. Mag., Tokyo 32: 159, 1918, **syn. nov.** Type: Japan,
 Honshu, Pref. Miyagi, Sendai, leg. Yasuda 94, June 10, 1913, — isotype in TNS.
 — *Lecidea tiliae* Vain., Bot. Mag., Tokyo 32: 161, 1918. **syn. nov.** Type: Japan,
 Honshu, Pref. Miyagi, Sendai, leg. Yasuda 93, June 10, 1913, — holotype in TUR
 (H-Vain. 24216), — isotype in TNS. — *Lecidea exigua* auct. non Chaub., Müll.
 Arg., Flora 63: 484, 1879.

subcongrua (Nyl.) M. Inoue, **comb. nov.**

Basionym. *Lecidea subcongrua* Nyl., Flora 57: 11, 1874. Type: Finland,
 "Lapponia Tornensis", leg. Norrlin 1867, — holotype in H (H-Nyl. 20142). (**New
 to Japan**) HOKKAIDO. Mt. Kaun in Mts. Daisetsu (1860 m, mi 8696).

subincongrua (Nyl.) Hertel & Leuckert, Willdenowia 5: 375, 1969. — *Lecidea
 parasema* ** *L. subincongrua* Nyl., Bull. Soc. Linn. Normand., ser. 2, 6: 291, 1872.
 Type: France, "Pyren. orient", leg. Nylander, — holotype in H (H-Nyl. 20143).
 (**New to Japan**) HONSHU. Pref. Nagano, Mt. Utsugi (2680 m, mi 6862). SHI-
 KOKU. Pref. Kochi, Mt. Shiraga (1460 m, mi 11220).

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 Taxon 38: 499-501, 1989.

derelicta (Nyl.) M. Inoue, **comb. nov.**

Basionym. *Lecidea derelicta* Nyl., Lich. Jap. 62, 1890. Type: Japan, Honshu, Pref.
 Kanagawa, Yumoto - Hakone, leg. E. Almquist, — holotype in S; — isotype in
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 — isotype in H (H-Nyl. 17412 & 17413). — *Bacidia globulosella* (Nyl.) Zahlbr.,
 Cat. Lich. Univ. 4: 202, 1926.

inductella (Nyl.) M. Inoue, **comb. nov.**

Basionym. *Lecidea inductella* Nyl., Lich. Jap. 71, 1890. Type: Japan, Honshu, Pref. Kanagawa, Yumoto, leg. E. Almquist, — lectotype in S, selected here.

synotheoides (Nyl.) Coppins, comb. nov.

Basionym. *Lecidea synotheoides* Nyl., Lich. Jap. 63, 1890. Type: Japan, Mt. Fuji "Ichigome", — isotype in H (H-Nyl. 4473 pm). — *Catillaria synotheoides* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 79, 1926.

XVI. MIRIQUIDICA Hertel & Rambold, Mitt. Bot. Münch. 23: 377–392, 1987;

Rambold & Schwab, Nord. Journ. Bot. 10: 117–121, 1990.

deusta (Stenh.) Hertel & Rambold, Mitt. Bot. Münch. 23: 383, 1987. — *Lecidea fuscoatra* var. *deusta* Stenham., Nov. schedul. crit. Lich. Suec., fasc. XIV, 9, 1833. Type: Sweden ?, Lich. exs. Suec. curante Stenhammar, no. 405, — holotype in UPS, non vidi. — *Lecidea secernens* H. Magn., Bot. Not. 408, 1923. Type: Sweden, Torne Lappmark, leg. Magnusson 5901, — holotype in UPS. (New to Japan) HONSHU. Pref. Nagano, Mt. Yari (2930 m, mi 4856).

XVII. PARAPORPIDIA Rambold & Pietschmann in Rambold, Bibl. Lich. 34: 243–264, 1989.

leptocarpa (Nyl. ex Bab. & Mitt.) Rambold & Hertel in Rambold, Bibl. Lich. 34: 250, 1989. — *Lecidea leptocarpa* Nyl. ex Bab. & Mitt. in Hooker, Fl. Tasmaniae 2: 352, tab. CC, fig. C, 1859. Type: Australia, Tasmania, non vidi. — *Lecidea tuberculans* Zahlbr. in Handel-Mazzetti, Symb. Sinic. 3: 97, 1930. Type: China, Yünnan, leg. Handel-Mazz. 1386, — isotype in W. (New to Japan) HONSHU. Pref. Hiroshima, Higashi-hiroshima, Mt. Kinmei (350 m, mi 11171).

XVIII. PHYLLOPSORA Müll. Arg., Bull. Herb. Boissier 2 (Appendix 1): 11, 1894.

Swinscow & Krog, Lichenologist 13: 203–247, 1981; Brako, Mycotaxon 35: 1–19, 1989; Brako, *Phyllopsora* (Flora Neotropica), pp. 67, 1991.

densiflorae (Vain.) G. Schneider ex Swinscow & Krog, Lichenologist 13: 241, 1981. — *Lecidea densiflorae* Vain., Bot. Mag., Tokyo 35: 67, 1921. Type: Japan, Honshu, Pref. Gunma, leg. Yasuda 350, — holotype in TUR (H-Vain. 22632); Schneider, Bibl. Lich. 13: 175, 1979.

haemophaea (Nyl.) Müll. Arg., Hedwigia 34: 141, 1895; Swinscow & Krog, Lichenologist 13: 231, 1981. — *Lecidea haemophaea* Nyl., Flora 52: 122, 1869. Type: Peru, Yurimaguas, — holotype in H (H-Nyl. 20520), non vidi. — *Lecidea kiiensis* Vain., Bot. Mag., Tokyo 35: 67, 1921. Type: Japan, Honshu, Pref. Wakayama, leg. Yasuda 268, — isotype in TNS. — *Phyllopsora kiiensis* (Vain.) G. Schneider ex Swinscow & Krog, Lichenologist 13: 231, 1981. — *Pannaria stylophora* Vain. var. *perconfluens* auct. non Vain.; Räs., Journ. Jap. Bot. 16: 145, 1940.

maingayensis (Cromb. ex Nyl. & Cromb.) M. Inoue, comb. nov.

Basionym. *Lecidea maingayensis* Cromb. ex Nyl. & Cromb., Journ. Linn. Soc., London Bot. 20: 67, 1884. Type: Japan, Kyushu, Nagasaki, leg. Maingay, — isotype in H (H-Nyl. 20931); Nyl., Lich. Jap. 61, 1890.

XIX. PLACYNTHIELLA Elenkin, Izv. imp. S. Petersb. bot. Sada 9: 18, 1909.

Coppins & P. James, Lichenologist 16: 243, 1984; Coppins, P. James & Hawksworth, Lichenologist 19: 93, 1987.

icmalea (Ach.) Coppins & P. James, Lichenologist 16: 243, 1984. — *Lecidea icmalea* Ach., Kungl. Svenska Vetensk Akad. Handl., 267, 1808. Type: Sweden, — isolectotype in H-Ach. 213. — *Lecidea fuliginea* Ach., Syn. Lich. 35, 1814; Nyl. Lich. Jap. 62, 1890. — *Lecidea youmotoensis* Nyl. Lich. Jap. 71, 1890. syn. nov. Type: Japan, Honshu, Pref. Kanagawa, Yumoto, leg. E. Almquist, — lectotype in S, selected here.

uliginosa (Schrader) Coppins & P. James, Lichenologist 16: 245, 1984. — *Lichen uliginosus* Schrader, Spic. fl. Germ. 1: 88, 1794. Type: Schrader Syst. Samml. crypt. Gew. no. 163, lectotype in GOET, non vidi. (New to Japan) HONSHU. Pref. Nagano, Mt. Norikura (2430 m, mi 12963). An additional specimen examined. Norway, "S. Trøndelag", A. H. Magn. exs. no. 3730 in TNS.

XX. PROTOBLASTENIA (Zahlbr.) J. Steiner, Verh. zool.-bot. Ges. Wien 61: 47, 1911.

amagiensis Räs., Journ. Jap. Bot. 16: 97, 1940. (Not seen)

handelii (Zahlbr.) M. Inoue, comb. nov.

Basionym. *Lecidea handelii* Zahlbr. in Handel-Mazzetti, Symbol. Sinic. 3: 111, 1930. Type: China, Yunnan, 3800 m alt., leg. Handel-Mazzetti 4749, — isotype in

W; Asahina, Journ. Jap. Bot. 29, 292, 1954b; Schneider, Bibl. Lich. 13: 191, 1979.

— *Lecidea pseudohaematomma* Asahina, Journ. Jap. Bot. 29, 225, 1954a. Type: Japan, Kyushu, Pref. Kagoshima, Yakushima isl., leg. Fujikawa, — holotype in TNS (?), non vidi.

wakavae Räs., Journ. Jap. Bot. 16: 96, 1940. Type: Japan, Pref. Iwate, Yasuda 523, — holotype in H (H-Räs).

XXI. **PSORA** Hoffm., Deut. Flora 161, 179; Schneider, Bibl. Lich. 13: 93–127, 1979; Timdal, Nord. J. Bot. 4: 525–540, 1984.

nipponica (Zahlbr.) Schneider, Bibl. Lich. 13: 117, 1979. — *Lecidea nipponica* Zahlbr., Bot. Mag., Tokyo 41: 330, 1927. Type: Japan, Honshu, Pref. Gunma, Mt. Miyogi, leg. U. Faurie 5832, — isotype in KYO.

rubiformella (Zahlbr.) Schneider, Bibl. Lich. 13: 121, 1979. — *Lecidea rubiformella* Zahlbr. nom. nov. for *Lecidea subrubiformis* Nyl., Lich. Jap. 60, 1890, nom. illegit. non *Lecidea subrubiformis* Vain. 1888. Type: Japan, Kyushu, Pref. Nagasaki, Nagasaki, leg. E. Almquist, holotype in H (H-Nyl. 21292).

rubiformis (Ach.) Hooker; M. Inoue, Hikobia 10: 176, 1988.

testacea Hoffm., Descript. et Adumbr. Plant Lich. 1: 99, 1790. Type: Europe ?, non vidi. (New to Japan) HONSHU. Pref. Nagano, Mt. Washiu (2880 m, mi 5977); Mts. Asama (2130 m, mi 621). An additional specimen examined. Körber, Lich. sel. Germ. exisc. no. 311 (WU).

XXII. **PSORULA** G. Schneider, Bibl. Lich. 13: 135–142, 1979; Timdal, Nord. J. Bot. 4: 525–540.

rufonigra (Tuck.) G. Schneider, Bibl. Lich. 13: 136, 1979. — *Biatora rufonigra* Tuck., Proc. Amer. Acad. Arts 1: 250, 1848. Type: U.S.A., Massachusetts, — holotype in FH-Tuck., non vidi. — *Lecidea asahinae* Zahlbr., Bot. Mag., Tokyo 41: 330, 1927. Type: Japan, Honshu, Pref. Nagano, Agematsu, leg. Asahina 536, — isotype in TNS.

XXIII. **PYRRHOSPORIA** Körber, Syst. Lich. Germ. 209, 1855; Hafellner, Herzogia 9: 725–747, 1993.

russula (Ach.) Hafellner in Kalb & Hafellner, *Herzogia* 9: 86, 1992. — *Lecidea russula* Ach.; M. Inoue, *Mem. Natn. Sci. Mus., Tokyo* 21:50, 1988.

elabens (Fr.) Hafellner, *Herzogia* 9: 731, 1993. — *Lecidea elabens* Fr.; M. Inoue, *J. Sci. Hiroshima Univ., ser. B*, 18: 31, 1982.

XXIV. *Rimularia* Nyl., *Flora* 51: 346, 1868; Hertel & Rambold, *Bibl. Lich.* 38: 145–189, 1990.

badioatra (Krempelh.) Hertel & Rambold, *Bibl. Lich.* 38: 164, 1990. — *Aspicilia badioatra* Hepp ex Krempelh., *Denks. Kgl. Bayer. Bot. Ges.* 4: 285, 1861. Type: Germany, Bayern, "Allgäuer Alpen, leg. Rehm no. 687, — lectotype in M, non vidi. — *Lecidea illita* Nyl., *Flora* 62: 356, 1879. Type: England, — holotype in H (H-Nyl. 14003); Nyl., *Lich. Jap.* 75, 1890. — *Lecidea insulatula* Nyl., *Lich. Jap.* 74, 1890. Type: Japan, Shikoku, Hiroshima Isl., leg. E. Almqvist, — holotype in S; — isotype in H (H-Nyl. 14007); Hertel, *Khumbu Himal* 6: 360, 1977.

XXV. **TEPHROMELA** Choisy, *Bull. Soc. Bot. France* 76: 522, 1929; Hertel & Rambold, *Bot. Jahrb. Syst.* 107: 469–501, 1985; Rambold, *Bibl. Lich.* 34: 144–155, 1989.

aglaea (Sommerf.) Hertel & Rambold, *Bot. Jahrb. Syst.* 107: 494, 1985. — *Lecidea aglaea* Sommerf.; M. Inoue, *Hikobia* 10: 177, 1988.

armeniaca (DC.) Hertel & Rambold, *Bot. Jahrb. Syst.* 107: 494, 1985. — *Lecidea armeniaca* (DC.) Fr.; M. Inoue, *Hikobia* 10: 180, 1988.

XXVI. *Trapelia* Choisy, *Bull. Soc. Bot. France* 76: 523, 1929; Hertel, *Herzogia* 1: 113–130, 1969; Hertel & Leuckert, *Willdenowia* 5: 369–383, 1969; Hertel, *Dtsch. Bot. Ges. Neuefolge*, nr. 4: 171–185, 1970.

coarctata (Sm. & Sow.) Choisy in Werner; Hertel, *Khumbu Himal* 6: 344, 1977; M. Inoue, *Mem. Natn. Sci. Mus., Tokyo* 21:46, 1988.

XXVII. **TRAPELIOPSIS** Hertel & Schneider in Schneider, *Bibl. Lich.* 13: 143–154, 1979; Coppins & P. James, *Lichenologist* 16:241–264, 1984.

flexuosa (Fr.) Coppins & P. James, *Lichenologist* 16:258, 1984; M. Inoue, *J. Hattori Bot. Lab. No.* 76: 191, 1994.

XXVIII. TREMOLECIA Choisy, Bull. Mens. soc. Linn. Lyon 22: 177, 1953; Hertel, Khumbu Himal 6: 350–359, 1977.

atrata (Ach.) Hertel, Khumbu Himal 6: 351, 1977. — *Gyalecta atrata* Ach. Kong. Vet. Akad. Nya Handl. 229, 1808. Type: Norway, "Finmarken", — lectotype in UPS.

The taxonomic status of the following species, which do not show close affinities with *Lecidea* (s. str.), has not yet been determined. They are provisionally placed under *Lecidea* s. lato.

LECIDEA s. lato

albofuscescens Nyl., Flora 50: 370, 1867; M. Inoue, Hikobia 10: 178, 1988.

aurigera Fée, Essai Cryp. 106, 1824. Type: Peru, "ad cortic. Cinchonae", — isotype in H (H-Nyl. 27698); Nyl., Acta Soc. Sci. Fenn. 26: 31, 1900; Zahlbr., Bot. Mag., Tokyo 41: 329, 1927.

decorata (Vain.) ad int.

Basionym. *Lecanora decorata* Vain., Bot. Mag., Tokyo 35: 52, 1921. Type: Japan, Honshu, Pref. Nagano, Mts. Yatsu, leg. Yasuda 130, — holotype in TUR (H-Vain. 5752). — *Lecidea rosulata* Zahlbr., Bot. Mag., Tokyo 41: 329, 1927, syn. nov. Type: Japan, Honshu, Pref. Yamagata, Ubayu, leg. Faurie 5852, — isolectotype in KYO; Hertel, Khumbu Himal 6: 300, 1977.

granifera (Ach.) Vain., Cat. Welwitsch. Afr. Pl. 2: 424, 1901. — *Lecanora granifera* Ach., Syn. Lich. 163, 1814. Type: "Guinea", corticolous, — holotype in H (H-Ach. 1069); Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 124, 1891. — *Lecidea declinella* Vain., Bot. Mag., Tokyo 35: 68, 1921., syn. nov. Type: Japan, Shikoku, Pref. Ehime, leg. Yasuda 163, — holotype in TUR (H-Vain. 23653).

homoeochroa Nyl., Lich. Jap. 60, 1890. Type: Japan, Honshu, Mt. Fuji, leg. E. Almquist, — holotype in S; — isotype in H (H-Nyl. 19891); Hertel, Khumbu Himal 6: 311, 1977.

marginata Schaerer; M. Inoue, Hikobia 10: 181, 1988.

ocelliformis Nyl., Flora 48: 145, 1865. Type: Finland, Hollola, leg. J. P. Norrlin, — holotype in H (Herb. Fenn. Scand.); — isotype in H (H-Nyl. 20607); M. Inoue, Mem. Natn. Sci. Mus., Tokyo 21: 48, 1988.

phaeops Nyl.; M. Inoue, Hikobia 10: 182, 1988.

- oreinodes* (Körb.) Weber & Hertel in Hertel, *Herzogia* 2: 493; Hertel, *Khumb. Himal.* 297, 1977; M. Inoue, *Mem. Natn. Sci. Mus., Tokyo* 21:46, 1988. — *Aspicilia oreinoides* Körb., *Abhandl. Schl. Ges. Vaterl. Kult.* 2: 32, 1862. Type: Austria, leg. F. Hochstetter 25, — isoelectotype in L (L910.134–2208). — *Lecidea ocellifera* Nyl., *Lich. Jap.* 70, 1890. Type: Japan, Kyushu, Pref. Nagasaki, Takashima, leg. E. Almquist, — lectotype in S; — isoelectotype in H (H-Nyl. 20105A). — *Lecidea hiroshimita* Nyl., *Lich. Jap.* 72, 1890. Type: Japan, Shikoku, Pref. Ehime, Hiroshima isl., leg. E. Almquist, — holotype in S; — isotype in H (H-Nyl. 16330).
- sphaerellifera* Nyl., *Acta Soc. Sci. Fenn.* 26: 32, 1900. Type: Japan, Honshu, Mt. Fuji, leg. E. Almquist, — isotype in H (H-Nyl. 4558 p.m.).
- sulphurea* (Hoffm.) Wahlenb., *Fl. Lapp.* 477, 1812. — *Lichen sulphureus* Hoffm. Type: Germany ?, non vidi. (New to Japan) HONSHU. pref. Nagano, Mt. Norikura (2420 m, mi 13004). An additional specimen examined. Fries *Lich. exs. Svec.* no.136, in M.
- symmicta* (Ach.) Ach., *Syn. Lich.* 36, 1814. — *Lecanora varia* var. *symmicta* Ach., *Lich. Univ.* 379, 1810. Type: Sweden, non vidi. — *Lecanora symmictera* Nyl., *Flora* 55: 249, 1872; *Nyl. Lich. Jap.* 46, 1890.
- turgidula* Fr., *Sched. Critic.* 10, 1824. Type: Sweden, Fr. *Lich. Suec. Exc.* no. 25, — holotype in UPS; — isotype in M; *Nyl., Lich. Jap.* 63, 1890; *Nyl., Acta Soc. Sci. Fenn.* 26: 32, 1900.
- zeorina* (Vain.) ad int. — *Sarcogyne zeorina* Vain., *Bot. Mag., Tokyo* 35: 69, 1921. Type: Japan, Pref. Gunma "Kozuke", Yasuda 304, — holotype in TUR (H-Vain. 25652). — *Biatorrella zeorina* (Vain.) Zahlbr., *Cat. Lich. Univ.* 5: 27, 1927; Yoshimura, *Lichen flora Japan* 116, 1974.

The lecideoid species not available for this study.

The following species were described or reported from Japan under the genus *Lecidea* (s. lato). However, at present I have not been confirmed the Japanese record yet.

Lecidea angolensis Müll. Arg., *Linnaea* 63: 35, 1880. Type: Angola, non vidi; Müll. Arg., *Nuov. Giorn. Bot. Ital.* 23: 127, 1891; Müll. Arg., *Nuov. Giorn. Bot. Ital.* 24:

197, 1892.

Lecidea apochroeella Nyl., Flora 48: 6, 1865. Type: Finland, Borgoe, leg. Th. Saelan, — holotype in H (H-Nyl. 20697), vidi; — isotype in H (Herb. Fenn. Scand.), vidi; Nyl., Lich. Jap. 62, 1890.

Lecidea contigua Fr., Nov. Sched. Critic. 14, 1827. Type not seen; Nyl., Lich. Jap. 72, 1890.

Lecidea enteroleuca (Ach.) Nyl.; Nyl. & Cromb., Journ. Linn. Soc. Bot. 20: 67, 1884; Nyl., Lich. Jap. 69, 1890.

Lecidea inexpectata Müll. Arg., Flora 62: 484, 1879. Type: Japan, Honshu, Pref. Hyogo, near Ikuno "J Kouno", leg. A. Henon, non vidi; Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 126, 1891.

Lecidea personatula Müll. Arg., Bull. Soc. Bot. Belg. 30: 68, 1891. Type: Costarica, non vidi; Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 197, 1892.

Lecidea pseudohandelii Asahina, Journ. Jap. Bot. 32: 359, 1957. Type: Japan, Honshu, Pref. Nara, non vidi.

B. The Japanese genera which are not assignable to lecideoid lichens

Names of accepted taxa are printed in boldface type; taxa not available for this study are in roman type.

I. **BACIDIA** De Not., Giorn. Bot. Ital. 1: 174-224, 1846.; Symb. Bot. Upsal. 12:436-477, 1952; Lumbsch, Nova Hedwigia 52: 419-426.

abducens (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 166, 1926. — *Lecidea abducens* Nyl., Lich. Jap. 68., 1890. Type: Japan, Mt. Fuji "Oumagaeyis - Ichigome", — isotype in H (H-Nyl. 17580).

akagiensis (Vain.) Yasuda, Flechten Japans 27, 1925 — *Lecidea akagiensis* Vain., Bot. Mag., Tokyo, 35: 66, 1921. Type: Japan, Pref. Gunma "Kozuke", Mt. Akagi, Yasuda 337, — isotype in TNS.

albescens Zwackh. — *Lecidea chlorotica* (Nyl.) Hue; Nyl., Lich. Jap. 68, 1890 ("Murayama", H-Nyl. 17940).

arceutina (Ach.) Arn., Verh. zool. - bot. Ges., Wien 19: 624, 1869. — *Lecidea luteola*

- * *L. arceutina* Ach., Meth. Lich. 61, 1803. Type not seen. — *Lecidea arceutina* (Ach.) S. Gray; Nyl., Acta Soc. Sci. Fen. 26: 33, 1900 ("Nakasaki", H-Nyl. 17282).
- baculifera* (Nyl.) Zahlbr., Cat. Lich. Univ. 179, 1926. — *Lecidea baculifera* Nyl., Lich. Jap. 67, 1890. Type: Japan, Mt. Fuji "Ichigome", — holotype in H, H-Nyl. 17410.
- beckhausii* Körb. — *Patellaria beckhausii* (Körb.) Müll. Arg.; Müll. Arg., Flora 62: 485, 1879 (Ikuno "J Kouno", not seen).
- endoleucula* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 194, 1926. — *Lecidea endoleucula* Nyl., Lich. Jap. 68, 1890. Type: Japan, Mt. Fuji "Ichigome", — isotype in H (H-Nyl. 17734).
- hakonensis* (Müll. Arg.) Yasuda, Flechten Japans 27, 1925. — *Patellaria hakonensis* Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 198, 1892. Type not seen. — *Lecidea hakonensis* (Müll. Arg.) Vain.
- invertens* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 252, 1926. — *Lecidea invertens* Nyl., Acta Soc. Sci. Fen. 26: 33, 1900. Type: Japan, Nagasaki, — holotype in H (H-Nyl. 17281).
- leptoboliza* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 117, 1926. — *Lecidea leptoboliza* Nyl., Lich. Jap. 76, 1890. Type: Japan, Pref. Kanagawa "Youmoto", — holotype in H (H-Nyl. 13002).
- luteola* (Schrad.) Mudd, Man. Brit. Lich. 183, 1861. — *Lichen luteolus* Schrad., Spicil. Fl. Germ. 85, 1794. Type not seen. — *Lecidea luteola* (Schrad.) Ach.; Nyl., Acta Soc. Sci. Fen. 26: 33, 1900 ("Nagasaki", H-Nyl. 4756 pm).
- luteorufula* (Tuck.) Zahlbr., Cat. Lich. Univ. 4: 121, 1926. — *Lecidea luteorufula* Tuck., Proc. Am. Ac. Arts 6: 276, 1864. Type: Japan, Pref. Okinawa "Loo choo Island", non vidi.
- melaena* (Nyl.) Zahlbr., Ann. Mycol. 7: 474, 1909. — *Lecidea melaena* Nyl., Bot. Not., 182, 1853; Nyl., Lich. Jap. 64, 1890. (Not seen)
- myricicola* (Vain.) Yasuda, Flechten Japans 28, 1925. — *Lecidea myricicola* Vain., Bot. Mag., Tokyo 35: 66, 1921. Type: Japan, not seen.
- naegelii* (Hepp) Zahlbr., Oest. Bot. Zeih. 59: 439, 1909. — *Biatora naegelii* Hepp, Flech. Europ. no. 19, 1853. Type not seen. — *Lecidea naegelii* (Hepp) Stitzenb.; Nyl., Acta Soc. Sci. Fen. 26: 33, 1900 ("Ichigome", H-Nyl. 4655 pm).

- pallidocarnea* (Müll. Arg.) Zahlbr., Cat. Lich. Univ. 4: 231, 1926; Kurokawa, Misc. Rep. Res. Inst. nos. 43-44: 15, 1957. — *Patellaria pallidocarnea* Müll. Arg., Flora 64: 232, 1881. Type: Brasil, non vidi.
- phaeoplaca* Zahlbr., Bot. Mag., Tokyo 41: 333, 1927. Type: Japan, Pref. Yamagata "Takayu", Faurie 5882, — isotype in KYO.
- sphaeroides* (Dicks.) Zahlbr. — *Patellaria sphaeroides* (Dicks.) DC.; Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 198, 1892 (not seen).
- spumosula* (Yasuda) Yasuda, Flechten Japans 28, 1925. — *Lecidea spumosula* Yasuda, Bot. Mag., Tokyo 29: 319, 1915. Type: Japan, Pref. Gunma, Mt. Akagi, Yasuda 100A, — holotype in TNS. non *Lecidea spumosula* Zahlbr., 1916 (= *Lecidella elaeochroma*).
- subdiscendens* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 242, 1926. — *Lecidea subdiscendens* Nyl., Lich. Jap. 67, 1890. Type: Japan, Mt. Fuji "Oumagayeshi", — holotype in H (H-Nyl. 17579).
- subrudis* (Nyl.) Zahlbr., Ann. Mycol. 14: 53, 1916. — *Lecidea subrudis* Nyl., Lich. Jap. 64, 1890. Type: Japan, Pref. Kanagawa "Yokohama", — holotype in H (H-Nyl. 21708).
- subvermifera* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 254, 1926. — *Lecidea subvermifera* Nyl., Acta Soc. Sci. Fen. 26: 33, 1900. Type: Japan, Mt. Fuji "Ichigome", — holotype in H (H-Nyl. 17099).
- trisepta* (Naeg.) Zahlbr. — *Patellaria trisepta* Naeg.; Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 127, 1891 (not seen).
- uvulina* Zahlbr., Ann. Mycol. 14: 52, 1916 (not seen).
- yasudae* (Vain.) Zahlbr., Cat. Lich. Univ. 4: 248, 1926. — *Lecidea yasudae* Vain., Bot., Mag., Tokyo 32: 159, 1918 (not seen)

II. BACTROSPORA Mass., Ric. Aut. Lich. 133, 1852; Egea & Torrente, Lichenologist 25: 211-255, 1993.

- patellarioides* (Nyl.) Almq., Om skand. art. släg. Schis. Opeg. Bact. 24, 1869. — *Lecidea patellarioides* Nyl., Mém. Soc. natn. Sci. nat. Cherb. 2: 333, 1854; Nyl., Lich. Jap. 69, 1890. Type: Algérie, — isotype in H (H-Nyl. 4860 pm). — *Lecanactis patellarioides* (Nyl.) Vain.; Sato, Cat. Lich. Jap. (ed. 2) 23, 1965.

III. BIATORELLA De Not., Giorn. Bot. Ital. 2: 192, 1846.

gibberella (Nyl.) Zahlbr., Cat. Lich. Univ. 5: 13, 1927. — *Lecanora gibberella* Nyl., Lich. Jap. 48, 1890. Type: Japan, Pref. Nagasaki "Takashima", — holotype in H (H-Nyl. 24516).

improvisula (Nyl.) Zahlbr., Cat. Lich. Univ. 41, 1927. — *Lecidea improvisula* Nyl., Lich. Jap. 74, 1890. Type: Japan, Pref. Kanagawa "Hakone - Yumoto", — holotype in H (H-Nyl. 21548). The position here is doubt.

praenotata (Nyl.) Zahlbr., Cat. Lich. Univ. 45, 1927. — *Lecidea praenotata* Nyl., Lich. Jap. 74, 1890. Type: Japan, Pref. Yamaguchi "Mozi", — holotype in H (H-Nyl. 21549). The position here is doubt.

simplex (Davies) Branch et Rustr. — *Lecanora simplex* (Davies) Nyl.; Hue, Nouv. Arch. Mus., ser 3, 3: 77, 1891 (not seen) = = = *Polysporina simplex* (Dav.) Vězda

IV. BRIGANTIAEA Trevis., Riv. Per. Lav. I. R. Accad. Sci. Lett. Arti Padova 1: 249, 1853; Hafellner & Bellemere, Nova Hedwigia 35: 237-261, 1981.

ferrugineum (Müll. Arg.) Kashiwadani & Kurokawa; — *Lopadium ferrugineum* Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 127, 1891; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 127, 1977. Type: Japan, Mt. Ontake, Miyoshi 109, non vidi. — *Lecidea ferruginea* (Müll. Arg.) Vain., Bot. Mag., Tokyo 32: 159, 1918; Vain., Bot. Mag., Tokyo 35: 66, 1921.

nipponica (Sato) Hafellner, Lichenologist 15: 265, 1983. — *Lopadium nipponicum* Sato, Journ. Jap. Bot. 11: 634, 1935; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 130. Type: Japan, Pref. Aomori, Mt. Osore-zan, M. Sato 158, in TNS, non vidi. — *Lecidea fuscolutea* auct. non (Dicks.) Ach.; Nyl., Lich. Jap. 66, 1890. — *Heterothecium fuscoluteum* auct. non (Dicks.) Tuck.; Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 199, 1892. — *Lopadium fuscoluteum* auct.; Sato, Cat. Lich. Jap. (ed. 2) 31, 1965.

purpurata (Zahlbr.) Hafellner & Bellemere, Nova Hedw. 35: 246, 1981. — *Lopadium purpuratum* Zahlbr., Bot. Mag., Tokyo 41: 334, 1927; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 132, 1977.

V. BUELLIA De Not., Giorn. Bot. Ital. 2: 195, 1846; Scheidegger, Lichenologist 25: 315

-364, 1993.

- aethalea* (Ach.) Th. Fr., Lich. Scand. 1: 604, 1874. — *Gyalecta aethalea* Ach., Lich. Univ. 669, 1810. Type not seen. — *Lecidea atroalbella* (Nyl.) Nyl.; Nyl. Lich. Jap. 79, 1890. — *Buellia aethalea* var. *atroalbella* (Nyl.) Vain., Bot. Mag., Tokyo 35: 63, 1921.
- canescens* (Dicks.) De Not.; Sato, Cat. Lich. Jap. (ed. 2) 6, 1965. — *Diploicia canescens* (Dicks.) Mass. (Not seen)
- casudae* Vain., Bot. Mag., Tokyo 32: 157, 1918. (Not seen)
- crocata* Zahlbr., Ann. Mycol. 29: 86, 1931. Type: Japan, Pref. Wakayama, Koya, Asahina 555, non vidi.
- dialytoides* Vain., Bot. Mag., Tokyo 32: 157, 1918. Type: Japan, Pref. Tottori, Mt. Daisen, Yasuda 89, — isotype in TNS.
- disciformis* (Fr.) Mudd.; Sato, Cat. Lich. Jap. (ed. 2) 6, 1965. — *Lecidea disciformis* (Fr.) Nyl., Lich. Jap. 77, 1890.
- disculiformis* (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 356, 1931. — *Lecidea disculiformis* Nyl., Lich. Jap. 78, 1890. Type: Japan, Pref. Kanagawa, Yokohama, — holotype in H (H-Nyl. 10358), — isotype in H (H-Nyl. 10357 & 10359).
- extenuata* Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 128, 1891. Type not seen.
- hypoleucodes* (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 367, 1931. — *Lecidea hypoleucodes* Nyl., Lich. Jap. 79, 1890. Type: Japan, Nagasaki, — holotype in H (H-Nyl. 18340).
- japonica* (Tuck.) Tuck., Lich. Calif. 25, 1866. — *Lecidea japonica* Tuck., Proc. Amer. Acad. Arts Sci. 5: 421, 1862. Type: Japan, Pref. Shizuoka, Shimoda, — isotype in H (H-Nyl. 11048).
- mourayamana* (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 382, 1931. — *Lecidea mourayamana* Nyl., Lich. Jap. 78, 1890. Type: Japan, "Murayama", — holotype in H (H-Nyl. 10647).
- penichra* (Tuck.) Hasse, Cont. U.S. Nat. Herb. 17: 122, 1913. — *Buellia oidalea* var. *penichra* Tuck., Syn. North Am. Lich. 2: 99, 1888. — *Lecidea oidalea* * *penichra* (Tuck.) Nyl., Lich. Jap. 81, 1890.
- placodiospora* Vain., Bot. Mag., Tokyo 35: 63, 1921. (Not seen)
- pleiophoroides* (Nyl.) Vain., Bot. Tid. 29: 113, 1909. — *Lecidea pleiophoroides* Nyl., Lich. Jap. 81, 1890. (Not seen)

protohallina (Kremph.) Vain. var. indissimilis (Nyl.) Vain.; Vain., Bot. Mag., Tokyo 32: 157. (Not seen)

punctata (Hoffm.) Mass.; Sato, Cat. Lich. Jap. (ed. 2) 6, 1965. — *Lecidea myriocarpa* (DC.) Röhl.; Hue, Nouv. Arch. Mus., ser 3, 3: 139, 1891.

soboensis Yasuda ex Räs., Journ. Jap. Bot. 16: 142, 1940. (Not seen)

squamosoareolata Vain., Bot. Mag., Tokyo 35: 63, 1921. (Not seen)

stellulata (Tayl.) Mudd. — *Lecidea stellulata* Tayl.; Nyl., Lich. Jap. 80, 1890. — *Lecidea minutula* (Hepp) Nyl.; Nyl., Lich. Jap. 80, 1890.

subnexa (Nyl.) Vain., Bot. Tids. 29: 115, 1909. — *Lecidea subnexa* Nyl., Lich. Jap. 77, 1890. Type: Japan, Mt. Fuji "Mourayama – Oumagayeshi, — holotype in H (H-Nyl. 10651).

succedens (Nyl.) Arn. — *Lecidea succedens* Nyl.; Nyl., Lich. Jap. 77, 1890. (Not seen)

takashimana (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 422, 1931. — *Lecidea takashimana* Nyl., Lich. Jap. 80, 1890. Type: Japan, "Takashima", — holotype in H (H-Nyl. 10639).

tetrastichella (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 423, 1931. — *Lecidea tetrastichella* Nyl., Lich. Jap. 80. Type: Japan, Pref. Hyogo, Kobe, — holotype in H (H-Nyl. 9306).

tunodae Räs., Journ. Jap. Bot. 16: 142, 1940. (Not seen)

vernicomma (Tuck.) Tuck.; Müll Arg., Flora 62:456 (1879). (Not seen)

xylographella (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 431, 1931. — *Lecidea xylographella* Nyl., Lich. Jap. 79, 1890. Type: Japan, Mt. Fuji "Ichigome), — Type ?, in H (H-Nyl. 10655, but only a packet !)

yasudae Vain., Bot. Mag., Tokyo 24: 62, 1921. (Not seen)

zabotica (Körb.) Räs.; Räs., Journ. Jap. Bot. 16: 142, 1940. — *Lecidea zabotica* (Körb.) Nyl., Lich. Jap. 81, 1890.

VI. BYSSOLOMA Trev., Spighe e Paglie, 6, 1853; Santesson, Symb. Bot. Upsal. 12: 477 – 494, 1952.

expansum Zahlbr., Bot. Mag., Tokyo 41: 319, 1927. Type: Japan, Pref. Yamagata "Takayu", Faurie 5912, — isotype in KYO.

leucocheilum (Tuck.) Zahlbr. — *Lecidea leucocheila* Tuck.; Nyl., Lich. Jap. 64, 1890.

VII. CALOPLACA Th. Fr.

coaddita (Nyl.) — *Lecidea coaddita* Nyl., Lich. Jap. 66, 1890 (not seen). —

Blastenia coaddita (Nyl.) Zahlbr., Cat. Lich. Univ. 7: 26, 1931.

euphoriza (Nyl.) M. Inoue, comb. nov.

Basionym. *Lecidea euphoriza* Nyl., Lich. Jap. 70, 1890. Type: Japan, Honshu, Mt.

Fuji, Ichigome, leg. E. Almquist, — holotype in S; — isotype in H (H-Nyl. 19559).

hexaspora (Hue) ad int. — *Lecidea hexaspora* Hue, Nouv. Arch. Mus., ser 5, 3: 181,

1913. Type: Japan, Pref. Miyagi, Kinkazan, Faurie 5134, — isotype in KYO. —

Blastenia hexaspora (Hue) Zahlbr., Cat. Lic. Univ. 7: 32, 1930.

peragrata (Fée) Stnr. — *Lecidea puncticulosa* "puncticulata" Fée; Müll. Arg., Nuov.

Giorn. Bot. Ital. 23: 127, 1891(not seen). — *Blastenia peragrata* "paragrata" (Fée)

Migula; Sato, Cat. Lich. Jap. (ed. 2) 5, 1965. (Not seen)

VIII. CATILLARIA Mass., Ric. Auton. Lich., 78, 1852.; Santesson, Symb. Bot. Upsal. 12: 428–435, 1952; Kiliias, Herzogia 5: 209–448, 1981.

afferens (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 11, 1926. — *Lecidea afferens* Nyl., Lich.

Jap. 65, 1890. Type: Japan, Nagasaki, — holotype in H (H-Nyl. 18228).

bouteilli Zahlbr.; Asahina, Journ. Jap. Bot. 8: 105, 1932.

chalybeia (Borr.) Mass. — *Lecidea chalybeia* Borr.; Nyl., Lich. Jap. 76, 1890. (Not seen).

var. *chloropoliza* (Nyl.) Kiliias, Herzogia 5: 324. (Not seen)

circumalbicans (Nyl.) Zahlbr., Cat. Lich. 4: 34, 1926. — *Lecidea circumalbicans* Nyl.,

Lich. Jap. 63, 1890. Type: Japan, Mt. Fuji "Oumagayeshi", — holotype in H (H-

Nyl. 19100).

circumpallescens (Nyl.) Zahlbr., Cat. Lich. 4: 34, 1926. — *Lecidea circumpallescens*

Nyl., Lich. Jap. 65, 1890. Type: Japan, Pref. Hyogo "Rockosan", — isotype in H (H-Nyl. 18231).

efferens (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 16, 1926. — *Lecidea efferens* Nyl., Lich.

Jap. 65, 1890. Type: Japan, Pref. Hyogo, Kobe, — holotype in H (H-Nyl. 18230).

eupodia (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 17, 1926. — *Lecidea eupodia* Nyl., Acta

- Soc. Sci. Fenn. 26: 32, 1900. Type: Japan, Mt. Fuji "Ichigome", — holotype in H (H-Nyl. 20914 "as *Lecidea eupoda*").
- inopinula* (Nyl.) Zahlbr., Cat. Lich. 4: 18, 1926. — *Lecidea inopinula* Nyl., Lich. Jap. 71, 1890. Type: Japan, Mt. Fuji "Ichigome", — holotype in H (H-Nyl. 13003).
- lividonigricans* (Müll. Arg.) Zahlbr., Cat. Lich. Univ. 4:56, 1926. — *Patellaria lividonigricans* Müll. Arg., Flora 62: 485, 1879. (Not seen)
- longella* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 56, 1926. — *Lecidea longella* Nyl., Acta Soc. Sci. Fenn. 26: 31, 1900. Type: Japan, Mt. Fuji "Ichigome", — isotype in H (H-Nyl. 4472 pm).
- melanocarpa* Zahlbr., Bot. Mag., Tokyo 41: 332, 1927. Type: Japan, Pref. Kagoshima, Yakushima Isl., faurie 2374, — isotype in KYO.
- peltiformis* (Müll. Arg.) Zahlbr., Cat. Lich. Univ. 4: 22, 1926. — *Patellaria peltiformis* Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 198, 1892. (Not seen)
- proferens* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 67, 1926. — *Lecidea proferens* Nyl., Lich. Jap. 65, 1890. Type: Japan, Pref. Fukuoka, Mozi, — holotype in H (H-Nyl. 18232).
- rudiuscula* (Müll. Arg.) Zahlbr., Cat. Lich. Univ. 4:23, 1926. — *Patellaria rudiuscula* Müll. Arg., Nuov. Giorn. Bot. Ital. 24: 197, 1892. (Not seen)
- simodensis* (Tuck.) Zahlbr., Cat. Lich. Univ. 4: 23, 1926. — *Lecidea simodensis* Tuck., Proc. Amer. Acad. Arts Sci. 5: 420, 1862. — *Heterothecium simodense* (Tuck.) Tuck., Gener. Lich. 173, 1872. (Not seen)
- subprivigna* (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 25, 1926. — *Lecidea subprivigna* Nyl., Lich. Jap. 75, 1890. Type: Japan, "Hiroshima", — holotype in H (H-Nyl. 12090).
- yezoensis* Zahlbr., Bot. Mag., Tokyo 41: 322, 1927. Type: Japan, Hokkaido "Shiribeshi", Faurie 6945, — isotype in KYO.

IX. **CATOLECHIA** Flotow ex Mass., Ric. Lich. Crost. 83, 1852; Hafellner, Nova Hedw. 30: 673–695, 1978.

- wahlenbergii* (Ach.) Flotow ex Körb., Syst. Lich. Germ. 181, 1855. — *Lecidea wahlenbergii* Ach., Meth. Lich. 81, 1803. Type: "Lapponia", leg. Wahlenberg, — lectotype in H (H-Ach. 219). — *Buellia pulchella* (Schrad.) Tuck.; Asahina, Journ. Jap. Bot. 5: 321, 1928.

X. CRESPONEA Egea & Torrente, Mycotaxon 48: 301–331, 1993.

premnea (Ach.) Egea & Torrente, Mycotaxon 48: 324, 1993. — *Lecidea premnea* Ach.; Nyl., Lich. Jap. 76, 1890. — *Lecanactis premnea* (Ach.) Arn.; Sato, Cat. Lich. Jap. (ed. 2) 23, 1965.

proximata (Nyl.) Egea & Torrente, Mycotaxon 48: 328, 1993. — *Lecanactis macrocarpa* Zahlbr., Bot. Mag., Tokyo 41: 315, 1927 (Faurie 1707, KYO).

XI. LECANACTIS Körb., Syst. Lich. German. 275, 1855.

amylacea (Ehrht.) Arn. — *Lecanactis illecebrosa* Fr.; Vain., Bot. Mag., Tokyo 35: 70, 1921. (Not seen)

nakajii Vain., Bot. Mag., Tokyo 35: 69, 1921. Type: Japan, Pref. Shimane, Yonago, Yasuda 162, — holotype in TUR (H–Vain. 26518).

scotomma (Nyl.) Vain., Bot. Mag., Tokyo 35: 70, 1921. — *Lecidea scotomma* Nyl., Lich. Jap. 75, 1890. Type: Japan, Nagasaki, — lectotype in H (H–Nyl. 10852), selected here.

scotommodes Vain., Bot. Mag., Tokyo 35: 70, 1921. Type: Japan, Pref. Gunma "Kozuke", Tsunoda 320 (Yasuda 166 ?), — isotype in TNS.

subfarinosa (Knight) Hellb.; Vain., Bot. Mag., Tokyo 35: 69, 1921. (Not seen)

XII. LETROUITIA Hafellner & Bellemere, Nova Hedwigia 35: 263–312, 1982; Hafellner & Bellemere, Nova Hedwigia 35: 645–729, 1982.

bifera (Nyl.) Hafellner, Nova Hedwigia 35: 666, 1982. — *Lopadium hiroshii* Kurok., Bull. Nat. Sci. Mus. Tokyo 12: 686, 1969; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 128, 1977.

transgressa (Malme) Hafellner & Bellemere, Nova Hedwigia 35: 710, 1982. — *Bombyliospora domingensis* var. *boninensis* Asahina, Journ. Jap. Bot. 10: 352, 1934.

XIII. LOPADIUM Körb., Syst. Lich. Germ. 210, 1855; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 123–134, 1977.

japonicum Zahlbr., Ann. Mycol. 14: 54, 1916; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 128, 1977. — *Lopadium shikokianum* Asahina, Journ.

Jap. Bot. 17: 140, 1941.

pezizoideum (Ach.) Körb.; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 131, 1977. — *Lecidea pezizoidea* Ach.; Nyl., Lich. Jap. 66, 1890.

puiggarii (Müll. Arg.) Zahlbr.; Kurokawa & Kashiwadani, Bull. Natn. Sci. Mus., ser. B (Bot.) 3: 132, 1977.

subcoerulescens Zahlbr.; Kurokawa, Misc. Rep. Res. Inst. Nat. Res. 41–42: 16, 1957.

XIV. MEGALOSPORA Meyen & Flotow, Verh. kais. Leop. Ak. Nat. 19, suppl. 1: 228, 1843; Sipman, Bibl. Lich. 18: 1–241, 1983.

atorubicans (Nyl.) Zahlbr.

ssp. *sendaiensis* (Räs.) Sipman, Bibl. Lich. 18: 99, 1983. — *Psorothecium atorubicans* var. *sendaiensis* Räs., Journ. Jap. Bot. 16: 151, 1940. Type: Japan, Pref. Miyagi, Sendai, Yasuda 517, — holotype in H (H-Räs). — *Lecidea marginiflexa* Hook. & Tayl. auct.; Nyl., Lich. Jap. 66, 1890. — *Megalospora marginiflexa* (Hook. & Tayl.) Zahlbr. auct. ; Sato, Cat. Lich. Jap. (ed. 2) 31, 1965.

— *Lecidea submarginiflexa* Vain., Bot. Mag., Tokyo 25: 67, 1921. Type: Japan, Pref. Tottori "Inaba", Yasuda 161, — holotype in TUR (H-Vain. 22112); — *Megalospora submarginiflexa* (Vain.) Zahlbr.; Sato, Cat. Lich. Jap. (ed. 2) 31, 1965.

sulphurata Meyen in Meyen & Flotow, Nova Acta Acad. Leopold. 19, suppl., 228, 1843. Type: Philippines, isotype in G, non vidi; Sipman, Bibl. Lich. 18: 125, 1983.

— *Megalospora nipponensis* Asahina, Journ. Jap. Bot. 32: 97, 1957. Type: Japan, Pref. Wakayama, Akitsugawa, Asahina 109, — holotype in TNS.

ikomae (Räs.) Sato — *Psorothecium ikomae* Räs., Journ. Jap. Bot. 16: 150, 1940.

Type: Japan, Pref. Tottori, Yasuda 518, — holotype in H (H-Räs).

tuberculosa (Fée) Sipman, Bibl. Lich. 18: 156, 1983. — *Lecidea tuberculosa* Fée,

Essai Cryptog. Ecorc. Offic., 107, 1824. Type: herb. Fée, Types no. 268, lectotype in G, non vidi; Nyl., Lich. Jap. 66, 1890. — *Bombyliospora tuberculosa* (Fée) Zahlbr., Bot. Mag., Tokyo 41: 360, 1927. — *Patellaria tuberculosa* (Fée) Müll. Arg.; Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 127, 1891. — *Lecidea nigrata* (Müll. Arg.) Vain.; Vain., Bot. Mag., Tokyo, 32: 159, 1918. — *Bombyliospora nigrata* (Müll. Arg.) Vain.; Sato, Cat. Lich. Jap. (ed. 2), 5, 1965. — *Bombyliospora japonica*

Zahlbr., Bot. Mag., Tokyo 41: 359, 1927. — *Patellaria granularis* Müll. Arg.,

Nuov. Giorn. Bot. Ital. 23: 127, 1891. Type: Japan, Pref. Kochi "Tosa", Miyoshi 24, — lectotype in G. — *Bombyliospora granularis* (Müll. Arg.) Zahlbr., Bot. Mag., Tokyo 41: 360, 1927. — *Bombyliospora subnigrata* Yasuda ex Räs., Journ. Jap. Bot. 16: 1523, 1940. Type: Japan, Pref. Gunma "Kozuke", Yasuda 699, — holotype in H (H-Räs).

XV. MYCOBLASTUS Norman, Nyt Mag Naturv. 7: 236, 1853; Schauerer, Nova Hedw. 8: 301–310, 1964.

affinis (Schaer.) T. Schauer., Nova Hedw. 8: 304, 1964. — *Lecidea melina* Kremph. ex Nyl.; Nyl., Lich. Jap. 77, 1890. — *Mycoblastus melinus* (Kremph. ex Nyl.) Hellb.; Sato, Cat. Lich. Jap. (ed. 2), 32, 1965.

alpinus (Fr.) Kerst. — *Mycoblastus sanguinarius* var. *alpina* (Fr.) Stein; Räs., Journ. Jap. Bot. 16: 151, 1940.

japonicus Müll. Arg., Nuov. Giorn. Bot. Ital. 23: 128, 1891; Räs., Journ. Jap. Bot. 16: 151, 1940. Type not seen. — *Lecidea sanguinaria* f. *persanguinaria* Nyl., Lich. Jap. 77, 1890. Type: Japan, "Murayama", — holotype in H (H-Nyl. 10923).

sanguinarius (L.) Norman — *Lecidea sanguinaria* (L.) Ach. var. *lecanoroidea* Nyl., Lich. Jap. 76, 1890. Type: Japan, Mt. Fuji "Ichigome", — holotype in H (H-Nyl. 10912).

XVI. PARMELIELLA Müll. Arg., Soc. Phys. Hist. Gen. 16: 376, 1862; Jørgensen, Opera Bot. 45: 1–123, 1978.

luridopallens (Vain.) M. Inoue, comb. nov.

Basionym. *Lecidea luridopallens* Vain., Bot. Mag., Tokyo 35: 67, 1921. Type: Japan, Honshu, Pref. Gunma, Mt. Akagi, Mitsukawa, Yasuda 167, — isotype in TNS.

XVII. RHIZOCARPON Ramond ex DC. in Lam. & DC., Fl. fr. II, 365, 1805; Runemark, Opera Bot. 2: 1–152, 1956; Thomson, Nova Hedwigia 14: 421–481, 1967; Feuerer, Bibl. Lich. 39: 1–218, 1991.

atrobrunnescens (Nyl.) Zahlbr., Cat. Lich. Univ. 4: 347, 1926. — *Lecidea atrobrunnescens* Nyl., Lich. Jap. 82, 1890. Type: Japan, Mt. Fuji "in limite arborum", —

holotype in H (H-Nyl. 9893).

atrovirens (L.) Chev.; Zahlbr., Bot. Mag., Tokyo 41: 334, 1927.

badioatrum (Flöerk. ex Spreng.) Th. Fr.; Sato, Cat. Lich. Jap. (ed. 2), 47, 1965. —

Lecidea atroalba auct.; Nyl., Lich. Jap. 82, 1890.

eupetraeoides (Nyl.) Blomb. & Forss., Enum. Pl. Scand. 93, 1880. — *Lecidea*

eupetraeoides Nyl., Flora 58: 12, 1875; Thomson, Nova Hedw. 14: 447, 1967. Type: Russia "Fretum Behringii, Lawrencebay", — lectotype in H (H-Nyl. 10177).

— *Lecidea atroalbescens* Nyl., Flora 67: 216, 1884. Type: Russia "Fretum Behringii, Konyanbay", — lectotype in H (H-Nyl. 10019). — *Rhizocarpon*

atroalbescens (Nyl.) Zahlbr.; Runemark, Opera Bot. 2: 76, 1956. — *Rhizocarpon nipponense* Räs., Rev. Sudam. Bot. 7: 92, 1942. Type: Japan, Pref. Iwate, Mt.

Kurikoma "Mt. Sukawa", Yasuda 609, — holotype in H (H-Räs.).

fujijamae Räs., Ann. Bot. Soc. Zool.-Bot. Fenn. Vanamo XIX, Notul. Bot. 14: 9, 1944.

Type: Japan, Mlt. Fuji, leg. Almqvist in 1879, — holotype in H (H-Räs.).

geographicum (L.) DC.; Sato, Cat. Lich. Jap. (ed. 2), 47, 1965. — *Lecidea geographica*

(L.) Rebert.; Nyl., Lich. Jap. 82, 1890.

japonicum (Räs.) Räs., Kuop. Luo. Yst. Yhd. Jul., ser B., 2: 8, 1949. — *Rhizocarpon*

geographicum var. *japonicum* Räs., Journ. Jap. Bot. 16: 151, 1940. Type not seen.

lavatum (Fr.) Arn. — *Lecidea lavata* Fr.; Nyl., Lich. Jap. 82, 1890. (Not seen)

massalongi f. *colludens* (Nyl.) Zahlbr.; Sato, Cat. Lich. Jap. (ed. 2), 47, 1965. —

Lecidea colludens Nyl.; Nyl., Lich. Jap. 82, 1890. (Not seen)

nabewariense Räs., Journ. Jap. Bot. 16: 151, 1940. Type: Japan, Pref. Gunma, Mt.

Nabewari, Tsunoda 433, — holotype in H (H-Räs.).

obscuratum (Ach.) Mass., Ric. Auton. Lich. 103, 1852. — *Lecidea obscurata* (Ach.)

Schaer.; Vain., Bot. Mag., Tokyo 32: 159, 1918.,

polycarpum (Hepp) Th. Fr., Lich. Scand. 617, 1874. — *Lecidea atroalbicans* Nyl.;

Nyl., Lich. Jap. 82, 1890.

postumum (Nyl.) Arn. — *Lecidea postuma* Nyl.; Nyl., Lich. Jap. 82, 1890. (Not seen)

XVIII. *TONINIA* Mass., Ric. auton. lich. crost. 107, 1852; Timdal, Opera Bot. 110: 1-137,

1991.

tristis (Th. Fr.) Th. Fr.

ssp. *fujikawae* (Sato) Timdal, Opera Bot. 110: 113, 1991. — *Lecidea fujikawae* Sato, Journ. Jap. Bot. 12: 48, 1936. Type: Japan, Honshu, Pref. Nagano, Todai, leg. Fujikawa, — holotype in TNS.

Summary

The total number of the Japanese lichens treated here includes 46 genera 189 species 4 varieties.

The following species were proposed as a new combination: *Biatora furfuracea* (Nyl.) M. Inoue, *Biatora leucosoralis* (Vain.) M. Inoue, *Biatora subrufata* (Nyl.) M. Inoue, *Lecidella elaeochroma* var. *caesitia* (Vain.) M. Inoue, *Lecidella praespersa* (Nyl.) M. Inoue, *Lecidella sendaiensis* (Zahlbr.) M. Inoue, *Lecidella subcongrua* (Nyl.) M. Inoue, *Micarea derelicta* (Nyl.) M. Inoue, *Micarea inductella* (Nyl.) M. Inoue, *Micarea synotheoides* (Nyl.) Coppins in M. Inoue, *Protoblastenia handelii* (Zahlbr.) M. Inoue and *Caloplaca euphoriza* (Nyl.) M. Inoue.

Eleven species were reported as new additions to the lichen flora of Japan: *Cecidonia umbonella*, *Lecidea promiscens*, *Lecidella carpathica*, *Lecidella lacteola*, *Lecidella subcongrua*, *Lecidella subincongrua*, *Miriquidica deusta*, *Paraporpidia leptocarpa*, *Placynthiella uliginosa*, *Psora testacea* and *Lecidea sulphurea*.

The following species were treated as synonyms (correct name in Parenthesis): *Lecidea pruni* (= *Lecidella sendaiensis*), *Lecidea tiliae* (= *Lecidella sendaiensis*), *Lecidea youmotoensis* (= *Placynthiella icmalea*), *Lecidea rosulata* (= *Lecidea decorata*), *Lecidea declinella* (= *Lecidea granifera*).

日本産ヘリトリゴケ科地衣類の種類相の解明

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