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Errata

Page	Line				
377	28	read	Bunruigaku	for	Bunrugaiku
378	16		*Friesiana*		*Frieseana*
	23		HASHIMOTO		HAHIMSOTO
379	1		OHTANI		OHOTANI
	9		com. nov.		com nov.
382	30		probably		probabry
386	7		*Dryopteridis*		*Dryoptris*
389	30		branched rhizoid		branched, rhizoid
391	26		*flagellata*		*flaggelata*
393	23		*flagellata*		*flaggelata*

CONTRIBUTIONS TO THE FLORA OF NORTHERN JAPAN IV

BY

KINGO MIYABE AND MISAO TATEWAKI

41. *Taxus cuspidata* SIEB. ET ZUCC. Fl. Jap. Fam. Nat. II. (1846), 108, et Fl. Jap. II. (1870), 61, *t. 128*; SHIRASAWA, Icon. For. Tr. Jap. I. (1911), 49, *t. 15, f. 1–8*; WILSON, Conif. & Tax. Jap. (1916), 11, *pl. V*; MIYABE & KUDO, Icon. Ess. For. Tr. Hokkaido, I. (1920), *t. 1*, et Fl. Hokkaido & Saghal. I. (1930), 68; REHD. Manual Cult. Tr. & Shr. (1927), 6; BEISSN. Handb. Nadelholzk. 3–Aufl. (1930), 46; MAKINO & NEMOTO, Fl. Jap. ed. 2, (1931), 135; HAYATA, Syst. Gymnosp. (1933), 235.

var. ***luteo-baccata*** MIYABE ET TATEWAKI, var. nov.

Cupula lutea, campanulata, ca. 7 mm. longa.

NOM. JAP. *Kimi-no-onko.*

HAB. *Yezo*: Sapporo, cult. (C. SUDÔ, X. 5, 1934—type, in Herb. Fac. Agr. Hokkaido Imp. Univ.).

42. *Betula davurica* (dauurica) PALL. Fl. Ross. 1. (1784), 60. *t. 39, fig. A*; LEDEB. Fl. Ross. III. (1846–51), 651; TRAUTV. in MAXIM. Prim. Fl. Amur. (1859). 250, (var. *Maximowiczii*,); REGEL, Monogr. Betulac. (1861), 113, *t. 8, f. 36–39, t. 10, f. 19–40*, et in DC. Prodr. XVI. –2. (1868), 174, (*a. typica*); DIPPEL, Handb. Laubbholzk. II. (1892), 178, *f. 85*; BURKILL, in Journ. Linn. Soc. XXVI. (1899), 498; PALIB. Consp. Fl. Korea. II. (1900), 48; KOMAR. Fl. Mansh. II. (1904), 45; WINKL. Betulac. in ENGL. Pfl.-reich. IV.–61. (1904). 86; SCHNEID. Ill. Handb. Laubholzk. I. (1906), 109, *fig. 57, k-k_1, fig. 60, p*; NAKAI, Fl. Korea. II. (1911), 203, et in Bot. Mag. (Tokyo), XXIX. (1915), 42, et Fl. Sylv. Korea. II. (1915) 28, *t. 15*; Koidz. in Bot. Mag. (Tokyo), XXVII. (1913), 146; Mori, Enum. Pl. Corea, (1922), 115; Kudo, Nippon Yûyôjumoku-Bunrugaiku, (1922), 116; REHD. Manual Cult. Tr. & Shr. (1927), 142; YAMAZUTA, List Manch. Pl. (1930), 82; MAKINO & Nemoto, Fl. Jap. ed. 2, (1931), 182; KOMAR. & KLOB-ALIS. Key Pl. Far East. Reg. USSR. (1931) 432, *tab. 131, fig. 2*; HARA, in Journ. Jap. Bot. IX.–3. (1933), 190; INOKUMA, in Bull. Tokyo Imp. Univ. For. XX.–5. (1934), 192, *t. VI. fig. 2*; TATEWAKI, in Hok-

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kaido Ringyô Kaihô, XXXII. (1934), 578.

NOM. JAP. *Ko-onoore, Yaegawa-kamba.*

HAB. *Yezo*: Senbiri, Rikuunbetsu, Prov. Tokachi (N. NAMBU & Y. MATSUI, VIII. 1934).

Remarks. New to the flora of Hokkaido and Saghalien.

43. *Pilea Hamaoi* MAKINO, in Bot. Mag. (Tokyo), X. (1896), 364, nom. subnud. et ibid. XXIII. (1909), 86, et Zôtei Sômoku-zusetsu, IV. (1913), 1279, *pl. 1168*; MATSUM. Ind. Pl. Jap. II.–2. (1912), 45; MAKINO & NEMOTO, Fl. Jap. ed. 2, (1931), 232.

NOM. JAP. *Mizu.*

HAB. *Yezo*: Mt. Raiden, Prov. Shiribeshi (I. YAMAMOTO, VIII. 26, 1933).

Remarks. New to the flora of Hokkaido & Saghalien.

44. *Stellaria mosquensis* M. BIEB. ex SCHLECHT. in Mag. Ges. Naturf. Freunde Berl. VII. (1816), 195; KOMAR. Fl. Pen. Kamtschat. II. (1929), 89; KOMAR. & KLOB.-ALIS. Key Far East. Reg. USSR. I. (1931), 493.

Stellaria Frieseana SER. in DC. Prodr. I. (1824), 397; MIYABE & MIYAKE, Fl. Saghal. (1915), 72.

Stellaria longifolia TAKEDA, Fl. Isl. Shikotan, (1913), 454; KUDO, Contr. Fl. Nor. Saghal. (1923), 34, p. p. (non MUEHLB.).

NOM. JAP. *Karafuto-nominofusuma, Kuromi-nominofusuma.*

HAB. *Yezo*: Chitose, Prov. Iburi (Y. TOKUBUCHI, 1890); Tomakomai, Prov. Iburi (K. MIYABE & J. HANZAWA, 1904). Akkeshi, Prov. Kushiro (K. MIYABE, 1884); Teshikaga, Prov. Kushiro (S. HAHIMSOTO, 1890); Kushiro, by Lake Harutori, Prov. Kushiro (K. MIYABE, 1894; G. TANAKA & KENJI MIYABE, 1910; K. Nishikawa, 1914).

Kuriles: Tomari, Isl. Kunashiri (T. ISHIKAWA, 1894). Between Shakotan and Chipoi, Isl. Shikotan (H. TAKEDA, 1909); Shakotan, Isl. Shikotan (G. TANAKA & KENJI MIYABE, 1910).

S. Saghalien: Kaizuka, Odomari–Distr. (K. MIYABE & T. MIYAGI, 1906); Odomari, Odomari-Distr. (K. MIYABE & T. MIYAGI, 1906; T. MIYAKE, 1907); Nakazato, Odomari-Distr. (K. MIYABE & T. MIYAGI, 1906); Chipusani, Odomari-Distr. (K. MIYABE, T. MIYAGI & T. MIYAKE, 1906). Kusunnai, Tomarioro-Distr. (K. MIYABE & T. MIYAGI, 1906; T. MIYAKE, 1906). Usutomanai, Ushoro-Distr. (K. MIYABE & T. MIYAGI, 1906); Anbetsu, Ushoro-Distr. (Y. TOKUNAGA & K. KAWAI, 1929); Kita-nayashi, Ushoro-Distr. (K. MIYABE & T. MIYAGI, 1906; Y. TOKUNAGA & K. KAWAI, 1929). Toyohara, Toyohara-Distr. (K. MIYABE &. T. MIYAGI, 1906); Dubuki, Toyohara-Distr. (K. MIYABE & T.

MIYAGI, 1906). Shikka, Shikka-Distr. (T. MIYAKE, 1906; H. OHOTANI & Y. IMAI, 1930); Ehorokofunai, Shikka-Distr. (T. MIYAKE, 1906); Borodo, Shikka-Distr. (T. MIYAKE, 1906); Satsukari, Shikka-Distr. (I. NAMIKAWA, 1914); Chirihasan, Shikka-Distr. (K. MIYABE & T. MIYAGI, 1906); Between Tominai and Nimenjo, Shikka-Distr. (H. OHTANI & Y. IMAI, 1930).

N. Saghalien: Pilew, Alexandrowsk-Distr. (K. MIYABE & T. MIYAGI, 1906; Y. KUDO & M. TATEWAKI, 1922). Alexandrowsk, Alexandrowsk-Distr. (Y. KUDO & M. TATEWAKI, 1922).

45. *Arabis Greatrexii* MIYABE ET TATEWAKI, com nov.

Cardamine Greatrexii MIYABE ET KUDO, in Trans. Sapporo Nat. Hist. Soc. VI.-3. (1917), 165, 177.

NOM. JAP. *Oshima-tanetsukebana.*

HAB. *Yezo*: Yunokawa near Hakodate, Prov. Oshima (F. GREATREX, VI. 10, 1916).

46. *Sedum yezoense* MIYABE ET TATEWAKI, sp. nov.

Caulis caespitosus, saepe 5–8 cm. altus, gracilis, erectus vel ascendens, basi leviter procumbens, dense foliosus. Folia caulina opposita, sessilia, erecta vel erecto-patentia, obovata, obovato-oblanceolata vel oblongo-ovata, rubro-punctata, apice obtusa vel acutiuscula, margine integerrima, 5–13 (–15) mm. longa, 3–5 mm. lata, nervis inconspicuis. Cyma densiflora, semi-rotundata, 1.2–3.0 cm. lata. Flores hermaphroditi, purpurei, pedicellis 4–6 mm. longis, gracilis, glaberrimis. Sepala lanceolata vel anguste lanceolata, ca. 3 mm. longa, 0.5–1 mm. lata. Petala lanceolata vel ovato-lanceolata, apice acuta, uni- vel trinervia, purpureo-punctata, ca. 6 mm. longa, 2.5–3 mm. lata. Stamina 10, petalis paulo breviora, quorum 5, petalis opposita ca. 1/4 petalis adnata quam stamina sepalis opposita disco inserta leviter breviora, filamentis purpureis, antheris atropurpureis, cordato-orbicularibus. Squamae hypogynae, trapezoides, albae, ca. 2 mm. longae, ca. 1.5 mm. latae. Ovaria 5, oblongo-fusiformia, ca. 3 mm. longa, 1.5 mm. lata, apice stylis filiformibus terminata.

NOM. JAP. *Yezo-misebaya.* (n. n.).

HAB. *Yezo*: Mt. Goken, Prov. Ishikari (A. GUBLER & Y. TOKUNAGA, IX. 20, 1925—type, in Herb. Fac. Agr. Hokkaido Imp. Univ.; K. FUJITA, IX. 5, 1928; I. YAMAMOTO, VIII. 14, 1931).

Remarks. The present species is related to *Sedum Takasui* KUDO and *Sedum pluricaule* KUDO. But it is distinguished from the former by the shape of the leaves, petals and ovary, and also by the slightly procumbent stem at the base; and from the latter by the shape of the leaves and petals, and also by the erect or ascending stem.

47. *Draba mongolica* TURCZ. in Bull. Soc. Nat. Mosc. XV. (1842), 256; BUSCH, in Fl. Sib. III. (1919), 374, cum *fig.*; POHLE, Drab. As. in FEDDE Repert. Beih. XXXII. (1925), 76; SCHULZ, in ENGL. Pfl.-reich. IV.-105. (1927), 278.

Draba incana L. var. *mongolica* E. REGEL, apud MAXIM. Enum. Pl. Mongol. (1889), 52.

NOM. JAP. *Yezo-no-iwanazuna.* (n. n.).

HAB. *Yezo*: At the top of Mt. Rishiri, Prov. Kitami (M. Tatewaki & S. Kyono, VII. 31, 1934).

Remarks. New to the flora of Japan.

48. *Potentilla apoiensis* NAKAI, Rep. Veg. Mt. Apoi, (1930), 37, descript. jap. et 54, nom. nud.

var. ***yuparensis*** MIYABE ET TATEWAKI, var. nov.

Potentilla Matsumurae WOLF, var. *yuparensis* KUDO, in sched.

Planta villoso-pubescens, 3–8 cm. alta. Folia flavellato-ternata, supra pilosa, subtus in nervis marginibusque dense sericeo-pubescentia; foliolis terminaribus obovato-cuneiformibus, apice profunde inciso-laciniatis, versus basin cuneatis et integerrimis; lateralibus oblique ovatis, saepe obovato-cuneiformibus vel semi-orbicularibus.

NOM. JAP. *Yûbari-kinbai, Chabo-miyamakinbai.*

HAB. *Yezo*: Mt. Yubari (H. YANAGIZAWA & A. HAMANA, VIII. 6, 1912—type, in Herb. Fac. Agr. Hokkaido Imp. Univ.; S. NISHIDA, VIII. 7-9, 1913; H. TAKEDA & M. TATEWAKI, VIII. 2, 1921).

49. *Astragalus* (Phaca) ***Yamamotoi*** MIYABE ET TATEWAKI, sp. nov.

Herbae, perennes, caespitosae, adscendentes vel erectae, subglabratae, elatae, caule 30-50 cm. alto. Folia impari-pinnata, internodiis longiora, 5–9 cm. longa; foliolis 4–5 (–6) –jugis, brevi-petiolulatis, oblongo-ellipticis, oblongis vel ovato-oblongis, apice retusis vel rotundatis, utrinque glabris, subtus pallidioribus, 1.8–3.8 cm. longis, 0.7–1.5 cm. latis. Stipulae a petiolo liberae, lanceolatae. Pedunculi axillares, adscendentes vel erecti, glabrescentes, folium superantes. Racemi elongati, ca. 6–7–flori. Bractae membranaceae, lanceolatae. Flores ca. 2.5 cm. longi, pedicellati, bibracteolati. Calyx campanulatus, ca. 8 mm. longus, leviter albo-hirsutus, lobis brevibus lineari-triangularibus nigro pilosis. Petala libera, decidua. Vexillum oblongo-obovatum vel elliptico-obovatum, apice rotundatum, in unguem attenuatum, 1.5–2 cm. longum, 0.6–0.8 cm. latum. Allae oblongae, integerrimae, vexillo breviores, apice rotundatae, basi auriculatae, unguiculatae, ungue lamina breviore. Carina alis subaequantia, basi auriculata, unguiculata, ungue lamina breviore. Stamina carinae aequilonga, basi connata,

filamentis inaequilongis. Ovarium stipitatum, glaberrimum, 8–10-ovulatum, stylo glabro elongato. Legumen stipitatum, glaberrimum, erectum, elliptico-oblongum, biloculare.

NOM. JAP. *Kariba-ohgi.* (n. n.).

HAB. *Yezo*: Mt. Kariba, Prov. Shiribeshi (I. YAMAMOTO, VII. 28, 1930—type, in Herb. Fac. Agr. Hokkaido Imp. Univ.).

50. *Viola Hultenii* W. BECKR. in Ark. f. Bot. XXII. A. No. 3, (1928), 4; HULT. Fl. Kamtchat. III. (1929), 133; KOMAR. Fl. Pen. Kamtschat. II. (1929), 307.

Viola blanda KUDO, Fl. Isl. Paramushir, (1922), 131; NAKAI, in Bot. Mag. (Tokyo), XLII. (1928), 565; OHWI, Fl. Isl. Shikotan, (1932), 39; TATEWAKI, Phytogeogr. Middle Kuril. (1933), 231, et Vas. Pl. Nor. Kuril. (1934), 323, (non WILLD.).

NOM. JAP. *Chishima-usubasumire.* (n. n.)

HAB. *Yezo*: Ochiishi, Prov. Nemuro (M. TATEWAKI, VI. 15, 1930).

Kuriles: Murakamiwan, Isl. Paramushir (Y. KUDO, n. 4979, VII. 4, 1920). Wan-oku, Isl. Shimushir (M. TATEWAKI & Y. TOKUNAGA, n. 12065, VIII. 25, 1928); Notoro, Isl. Shikotan (M. TATEWAKI, VI. 22, 1934).

S. SAGHALIEN: Noto in the North Shiretoko Peninsula, Shikka-Distr. (Y. HOSHINO, Y. OKADA & S. SUGIYAMA, VIII. 14, 1933).

Remarks: New to the flora of Yezo and Saghalien.

51. *Viola Selkirkii* PURSH, var. ***albiflora*** NAKAI, in Bot. Mag. (Tokyo), XXXIII. (1919), 9.

NOM. JAP. *Shirobana-miyamasumire.*

HAB. *Yezo*: At the foot of Mt. Rishiri, Oniwaki-side, Isl. Rishiri (M. TATEWAKI, V. 1934).

Remarks. var. new to the flora of the northern Japan.

52. *Polemonium coeruleum* L. var. ***racemosum*** MIYABE ET KUDO, in Trans. Sapporo Nat. Hist. Soc. IV. (1913), 99, 104; MIYABE & MIYAKE, Fl. Saghal. (1915), 333; KUDO, Contr. Fl. Nor. Saghal. (1923), 53, et Rep. Veg. Nor. Saghal. (1924), 207.

NOM. JAP. *Kushiro-hanashinobu.*

HAB. *Kuriles*: The upper Okkaibetsu, Isl. Shikotan (D. AKAISHI, VI. 30, 1934).

Remarks. New to the flora of the Kuriles.

53. *Castilleja pallida* KUNTH, Syn. Pl. Aequin. (1823), 100, in not.;

DC. Prodr. X. (1846), 531; Ledeb. Fl. Ross. III. (1846-51), 257; RGL. ET TIL Fl. Ajan. (1859), 114, (*α. communis*); HERD. Pl. Radd. Monop. VI. (1884), 45, n. 494, (*communis*); MACOUN, Cat. Canad. Pl. II. (1884), 365; KOMAR. Fl. Mansh. III. (1907), 437, et Fl. Pen. Kamtschat. III. (1930), 73; MACOUN & HOLM, Rep. Canad. Arc. Exped. 1913-15, (1921), 19-A; HOLM. ibid. (1922), 56-B; HULT. Fl. Kamtchat. IV. (1930), 105; YAMAZUTA, List Manch. Pl. (1930), 242; KOMAR. & KLOB.-ALIS. Key Pl. Far East. Reg. USSR. II. (1932), 924.

NOM. JAP. *Kasuterisô*, (YAMAZUTA), *Miyama-garagara*. (n. n.).

HAB. *S. Saghalien*: Outorigawa Peak, alt. 3000 ft. Shikka-Distr. (A. HIRUTA, VIII. 1934).

Remarks. *gen.* and *sp.* new to the flora of Japan.

54. *Campanula lasiocarpa* CHAM. in Linnaea IV. (1829), 39; LEDEB. Fl. Ross. II. (1844-46), 890; TATEWAKI & KOBAYASHI, Contr. Fl. Aleut. Isl. (1934), 83.

form. ***albiflora*** TATEWAKI, form. nov.

Flores albi.

NOM. JAP. *Shirobana-Iwagikyô*.

HAB. *Yezo*: Mt. Biyei, Prov. Ishikari (C. HARA, VIII. 1930).

55. *Rottboellia latifolia* STEUD. in Fl. XXIX. (1846), 21; HACK. in Bull. Herb. Boiss. (1899), 641; RENDLE, in Journ. Linn. Soc. XXXVI. (1904), 362; MATSUM. Ind. Pl. Jap. II.-1. (1905), 81; NAKAI, Fl. Korea. II. (1911), 341; HONDA, Monogr. Poac. Jap. (1930), 371; MAKINO & NEMOTO, Fl. Jap. ed. 2, (1931), 371, (var. *angustifolia*).

Manisuris latiforia KTZE. var. *foliata* HONDA, in Bot. Mag. (Tokyo), XXXIX. (1925), 275; MIYABE & KUDO, Fl. Hokkaido & Saghal. II. (1931), 110.

NOM. JAP. *Aiashi, Goki*.

HAB. *Yezo.*: Muroran, Prov. Iburi (U. FAURIE, IX. 12, 1887); Shizunai, Prov. Hidaka (Y. TOKUBUCHI, VIII. 23, 1892). Oshoro, Prov. Shiribeshi (K. MIYABE, VIII. 1932; I. YAMAMOTO, IX. 2, 1934).

Remarks: Oshoro, Prov. Shiribeshi, is probabry the northernmost limit of the distribution of the present species.

56. *Carex gynocrates* WORMSK. apud DREJER, Rev. Crit. (1841), 16; KURTZ, in ENGL. Bot. Jahrb. XIX. (1895), 414; FEDTSCH. Fl. Il. Comm. (1906), 114; KUEK. Cyp.-Car. (1909), 79; HULT. Fl. Kamtchat. I. (1927), 172, et ibid. IV. (1930), 242; KOMAR. Fl. Pen. Kamtchat. I. (1927), 223; MIYABE & KUDO, Fl. Hokkaido & Saghal. II. (1931), 214; MACKENZ. in Nor. Am. Fl. XVIII.-2. (1931), 98; AKIYAMA, Consp. Car. Jap. (1932), 48; TATEWAKI, Phytogeogr.

Middle Kuril. (1933), 218, 241, 262, 291; OHWI, Fl. Isl. Shikotan, (1933), 273; TATEWAKI & KOBAYASHI, Contr. Fl. Aleutian Isl. (1934), 106.

Carex dioica L. var. γ LEDEB. Fl. Ross. IV. (1853), 264.

Carex dioica L. var. *gynocrates* OSTENF. Fl. Arc. (1902), 60.

NOM. JAP. *Kanchi-suge.*

HAB. *S. Saghalien*: Nushike in the north Shiretoko Peninsula, Shikka-Distr. (Y. HOSHINO, VII. 21, 1933)

Remarks. New to the flora of Saghalien.

57. *Carex norvegica* WILLD. ex Schkuhl. Riedgr. I. (1801), 50, *t. S, fig. 66*, et II. (1806), 207; KUEK. Cyp. Car. (1909), 216; NAKAI, in Bot. Mag. (Tokyo), XXIX. (1915), (59); HULT. Fl. Kamtchat. I. (1927), 181; KOMAR. Fl. Pen. Kamtschat. I. (1927), 229; MIYABE & KUDO, Fl. Hokkaido & Saghal. II. (1931), 223; MAKINO & NEMOTO, Fl. Jap. ed. 2, (1931), 1440; AKIYAMA, Consp. Car. Jap. (1932), 73.

NOM. Jap. *Noruge-suge, Karafuto-suge.*

HAB. *Yezo*: Shunkunitai, Prov. Nemuro (M. TATEWAKI, VIII. 1934).

Remarks. New to the flora of Yezo.

58. *Fritillaria camschatcensis* KER-GAWL. in CURTIS's Bot. Mag. XXX. (1809), sub. *t. 1216*; LEDEB. Fl. Ross. IV. (1853), 147; MIYABE & KUDO, Fl. Hokkaido & Saghal. III. (1932), 326; TATEWAKI & KOBAYASHI, Contr. Fl. Aleut. Isl. (1934), 114.

var. ***flavescens*** MAKINO, in Journ. Jap. Bot. VIII. (1932), 24.

NOM. JAP. *Kibana-kuroyuri.*

HAB. *Yezo*: Kushiro, Prov. Kushiro (F. KASAI, VI. 18, 1934); Shitakara, Prov. Kushiro (K. TODOME, VI. 15, 1934).

59. *Pogonia japonica* REICHB. f. in Linnaea XXV. (1852), 228; MAKINO, in Bot. Mag. (Tokyo), XII. (1898), 103; SCHLTR. Orchid. Sino-Jap. Prodr. (1919), 144; MAKINO & NEMOTO, Fl. Jap. ed. 2, (1931), 1673; MIYABE & KUDO, Fl. Hokkaido & Saghal. III. (1932), 371.

form. ***pallescens*** TATEWAKI, form. nov.

Flores albi.

NOM. JAP. *Shirobana-tokisô.*

Hab. *Yezo*: Shizukari, Prov. Iburi (M. TATEWAKI, VII. 10, 1921).

60. *Cypripedium macranthum* SW. in Act. Acad. Holm. (1800), 250; SCHLTR. Orchid. Sino.-Jap. Prodr. (1919), 83; MIYABE & KUDO, Fl. Hokkaido & Saghal. III. (1932), 354.

NOM. JAP. *Hotei-atsumori.*

HAB. *Kuriles*: Isl. Kunashiri (S. Yokoyama, 1891; M. TATEWAKI, 1923). Isl. Shikotan (M. TATEWAKI, 1934). Isl. Etorofu (S. YOKOYAMA, 1893; M. AIZAWA, 1900; K. MIURA, 1906; G. TANAKA & KENJI MIYABE, 1910). Isl. Urup (K. JIMBO, 1891; K. UCHIDA, 1891; S. FUJIMURA, 1891; K. MIURA, 1906; M. TATEWAKI, 1927; S. ITAGAKI, 1928). Isl. Shimushir (I. KODAMA, 1893). Isl. Ketoi (M. TATEWAKI & K. TAKAHASHI. 1929). Isl. Makanru (H. KAMIO, 1929). Isl. Shumushu (K. KISHIKAWA, 1934).

摘　　要

北 日 本 植 物 誌 料　三

宮 部 金 吾・舘 脇　操

新　種：25. セイヤブシ；36. ユカハザサ。

新變種：26. リシリブシ；27. シロミノル キエフシヤウマ；35. ホソバノキクバクハガタ；37. フシグサウウンザサ。

新品種：39. シロバナヤチギバウシユ；40. シロバナタチギバウシユ。

日本に新記錄：34. パラムシロシホガマ。

北日本に新記錄：29. ツリフネカラマツ；31. タゴバウ；33. ヲカムラサキ；38. ヒメザゼンソウ。

北海道本島に新記錄：32. ヒメツルコケモモ。

千島に新記錄：30. テウセンアハゴケ。

樺太に新記錄：28. ハヒヒキノカサ。

北 日 本 植 物 誌 料　四

新　種：46. エゾミセバヤ；49. カリバヲウギ。

新變種：41. キミノホンコ；48. ユウバリキンバイ。

新品種：54. シロバナイハギキヤウ；59. シロバナトキサウ。

新結合：45. チシマタネツケバナ。

本邦に新記錄：47. エゾノイハナヅナ；53. ミヤマガラガラ。

北日本に新記錄：42. コチノオレ；43. ミヅ；51. シロバナミヤマスミレ。

北海道本島に新記錄：50. チシマウスバスミレ；57. ノルゲスゲ。

千島に新記錄：52. クシロハナシノブ。

樺太に新記錄：56. カンチスゲ。

學名變更：44. カラフトノミノフスマ，クロミノミノブスマ。

其　他：55. アイアシ（北限）；58. キバナクロユリ；60. ホテイアツモリ（千島列島の分布）。

ON THE CLAVARIACEAE OF JAPAN IV

BY

SANSHI IMAI

1. ***Physalacria Sasae*** IMAI, sp. nov.

Gregaria vel solitaria, alba, sicco straminea, capitata. Capitulo usque ad 3 mm. crasso, subgloboso vel ovoideo, cavo; stipite cylindraceo, farcto, usque ad 1 mm. longo et 200 μ crasso; basidiis cylindraceis, 4-sporiferis; sporis ellipsoideis, hyalinis, asperulis, 10–13 × 3–5 μ; cystidiis fusiformibus, hyalinis, 60–70 × 10–13 μ.

Hab. in culmis Sasarum emortuis. Prov. Ishikari, Mt. Kurodake. Aug.–Sept.

Jap. name. *Tamabari-take.*

Physalacria was described by PECK in 1882 based on *Ph. inflata*. It is a small genus containing less than ten species, all of which are rarely found and interesting in their peculiar habit. In SACCARDO's Sylloge fungorum, nine species of the genus have been enumerated, *viz. Ph. inflata* PECK from North America and the Philippines, *Ph. Langloisii* ELL. et EVERH. from Louisiana, U. S. A., *Ph. stilboidea* (CKE.) SACC. from New Zealand, *Ph. orinocensis* PAT. et GAILL. from Venezuela, South America, *Ph. changensis* ROSTR. from Siam, *Ph. andina* PAT. from the equatrial regions of Central Africa, *Ph. rugosa* RICK from Brazil, *Ph. Bambusae* v. HÖHN. from Java and *Ph. villosa* PETCH from Ceylon. These fungi occur mostly in tropical regions, although *Ph. inflata* was collected in northern parts of the United States of America, namely in Michigan and New Hampshire, and it was remarked by PECK that the fungus occurs especially in mountains or hilly districts in summer.

The fungus was collected by the writer on dead culms of *Sasa kurilensis* MAKINO et SHIBATA var. *cernua* NAKAI (*Okuyama-zasa*) in the forest of Mt. Kurodake in the Province of Ishikari, Hokkaido, at about 1000 meters altitude above sea-level and at about 43° 43′ north latitude, in August 1933 and again in September 1934.

Ph. Bambusae which occurs on dead bamboo culms, has globose spores and no cystidia. *Ph. inflata* which occurs in northern regions of the U. S. A. has larger fructification and smaller spores than those of our fungus. The fungus

[Trans. Sapporo Nat. His. Soc., Vol. XIII, Pt. 4, 1934]

under consideration is easily distinguished from other species in the genus by the larger white fructifications and the larger, asperulate and ellipsoidal spores.

2. ***Pistillaria Dryopteridis*** IMAI, sp. nov.

Gregaria vel solitaria, exigua, 1–5 mm. alta, alba, linearis vel filiformis, levis; stipite non distincto; basidiis subcylindraceis, vix incrassatis, 5 μ crassis, bisporis; sporis crasso-ellipsoideis, apiculatis, asperulis, hyalinis, 9–12.5 × 5–6.5 μ.

Hab. ad frondes emortuas *Dryoptris dilatatae*. Prov. Ishikari, Sapporo. Nov.

Jap. name. *Shida-gamanohotake-modoki.*

The macroscopic features of the fungus are allied to *P. cylindracea* KARST. and *P. pusilla* FR., but it is easily distinguished from the latter two by the larger and asperulate spores. From *P. quisquilliaris* FR. growing on the fronds of *Pteridis aquilina*, our fungus is clearly distinct in the filiform or linear fructification. The fungus in question seems to be allied to *P. subpellucida* B. et C., but one can not be certain as to the relation between them because the diagnosis of the latter species is very brief and incomplete.

3. ***Clavaria subumbrinella*** IMAI, sp. nov.

Solitaria, ter quaterve ramosa, umbrina (tawny-olive), circa 5 cm. alta; ramis dichotomis, apicibus subacutis; stipite distincto, parte subterranea leniter albo-tomentosa; basidiis clavatis; sporis in cumulo albis, crasso-ellipsoideis, levibus, circa 5 × 3 μ.

Hab. ad terram in sylvis. Prov. Ishikari, Nopporo. Oct.

Jap. name. *Hime-hôkitake-modoki.*

The fungus somewhat resembles *C. umbrinella* SACC. from which it is distinguishable by the slightly tomentose stipe and by the mode of branching. *C. umbrinella* has no stipe and branches at the basal part of the plant.

4. ***Clavaria ornatipes*** PECK

Clavaria ornatipes PECK, Bull. N. Y. St. Mus. CXXII, 18, 160, 1908.
Lachnocladium bicolor BURT, Ann. Mo. Bot. Gard. VI, 274, pl. 5, f. 6, textf. 13, 1920.
Lachnocladium ornatipes BURT, ibid. IX, 65, f. 102, 1922.

Hab. on the ground in woods. Prov. Iburi, Lakeside of Shikotsu. Sept.

Jap. Name. *Ke-ashi-hôkitake.*

The spores of the fungus are almost globose or slightly ovoid with a small apiculum and 8 to 10 μ in diameter. The basidia are usually bi-spored.

5. ***Clavaria fistulosa*** FR.

Clavaria fistulosa FR. Syst. Myc. I, 479, 1821.

Hab. on dead branches lying under the ground or among fallen leaves in woods. Prov. Kushiro, Foot of Mt. Meakan. Sept.

Jap. name. *Kuda-take.*

The present fungus is clavate-cylindrical or narrow clavate and hollow in shape, 13 to 32 cm. in length, 2 to 4 mm. in diameter, and the spores are 10–15 × 5–8 μ.

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摘　　要

日本産箒茸科に就て IV

今　井　三　子

1. 玉針茸 *Physalacria Sasae* IMAI (新種)

頭部は白色、球形で、直徑 1-3 mm あり、之に長さ約 1 mm. 太さ 0.2 mm の白色の柄があつて、枯れたオクヤマザサ(ネマガクダケ)の稈に生えてゐる微小な茸である。本屬は北米合衆國の北部で枯木上に生えてゐた頭部直徑 1-2 cm. の白色の茸で作られたものであるが、其後發見された 8 種程の菌は皆熱帶地方産である。本菌は大雪山彙の黒岳登山道路の傍で發見されたもので海拔約 1000米の處である。本屬基本種と共に寒冷地所産の菌として記憶さるべきものである。

2. 羊齒擬蒲穗茸 *Pistillaria Dryopteridis* IMAI (新種)

シラネワラビの葉上に生えた菌で 1-5mm. の長さある白色略々絲狀のものである。

3. 擬姫箒茸 *Clavaria subumbrinella* IMAI (新種)

長さ 5 cm. 内外で外形が稍々姫箒茸、茶箒茸等に類似するが、分岐が極めて少いのと其胞子が廣楕圓形、平滑で 5×3 μ の大いさである點で容易に區別出來る。

4. 毛脚箒茸 *Clavaria ornatipes* PECK

カレエダタケ *Cl. cristata* や ムラサキハハキタケモドキ *Cl. amethystinoides* に幾分似た處があるが、暗褐色の莖に粗剛な毛茸の生えてゐる點で容易に區別出來る。尙其胞子は略々球形で直徑 8-10μ あり、擔子嚢は胞子 2箇を附けてゐる點で顯微鏡的には容易に區別出來る。

5. 管茸 *Clavaria fistulosa* FR.

棍棒狀圓筒形、或は細長棍棒形で 13乃至32 cm. の長さある細長の菌で、其内部は空洞になつてゐる。森林内の地下或は落葉中に横つてゐる小枝に、莖の基部にある毛茸で附着してゐる場合が多い。

STUDIES ON THE AQUATIC CHYTRIDS OF JAPAN
III. Rhizidiaceae

BY

YOSIO TOKUNAGA

(With one plate)

In preceding numbers of the Transactions[1], the writer reported ten species of Woroninaceae and seven of Olpidiaceae among the Japanese aquatic chytrids. In the present paper the writer records nine species of Rhizidiaceae as new contributions to the mycological flora of this country. In recent years, SKVORTZOW[2] engaged himself in the study of Phycomycetes in Manchuria and published two papers in which the following five Rhizidiaceous fungi were recorded, viz., *Rhizophidium sphaerocarpum* (ZOPF) A. FISCHER, *Rh. Hormidii* SKVORTZOW, *Phlyctidium Eudorinae* SKVORTZOW, *Dangeardia mamillata* B. SCHRÖDER and *Polyphagus Eudorinae* NOWAKOWSKI.

The writer wishes to express his heartiest thanks to Prof. Emer. K. MIYABE for his valuable suggestions and to Profs. S. ITO and Y. TOCHINAI for their kind directions. He is also indebted to Mr. M. NAGAI for his kind help in the identification of the host plants.

Phlyctidium A. BRAUN

in Monatsber. Akad. Wiss. 1855 (subgenus); SCHRÖTER, in Krypt. Fl. Schlesien, III, 1, p. 190, 1889.

Syn. *Rhizophidium* (SCHENK) A. FISCHER, in RABENHORST's Krypt. Fl. I, 4, p. 85, 1892, pro parte.

1. ***Phlyctidium brevipes*** (ATKINSON) v. MINDEN

(Pl. XI, figs. 1–2)

in Krypt. Fl. Mark Brand. V, p. 313, 1915.

Syn. *Rhizophidium brevipes* ATKINSON, in Bot. Gaz. XLVIII, p. 323, fig. 2, 1909.

Zoosporangia spherical or ovoidal, 10.2–19.2 μ in diameter, with an apical exit-papilla and a basal, short, unbranched rhizoid; zoospores egg-shaped, about 3 μ in diameter, with a single cilium; resting spores unknown.

1) Vol. XIII, Pt. 1, p. 20–28, pl. II, 1933; Pt. 2, p. 78–84, pl. V, 1933.

2) Arch. Protist. LI, p. 428–433, 1925; ibid. LVII, p. 204–206, 1927.

Hab. On cell walls of *Oedogonium* sp.

Hokkaido: Prov. Ishikari; Sapporo (July 9, 1932. Y. TOKUNAGA).

On cell walls of *Spirogyra* sp.

Hokkaido: Prov. Iburi; Lake Doya (Sept. 27, 1932. Y. TOKUNAGA).

Distrib. N. America and Japan.

Rhizophidium SCHENK

Ueber d. Vorkommen Kontraktiler Zellen, 1858.

2. *Rhizophidium carpophilum* (ZOPF) A. FISCHER

(Pl. XI, fig. 3)

in RABENHORST's Krypt. Fl. I, 4, p. 95, 1892; v. MINDEN, in Krypt. Fl. Mark Brand. V, p. 325, 1915; COKER, Saproleg. p. 186, pl. LXII, figs. 11–13, 1923.

Syn. *Rhizidium carpophilum* ZOPF, in Nova Acta Acad. Leop. Halle, XLVII, p. 200, pl. XX, figs. 8–16, 1884.

Zoosporangia aggregated on the oogonial walls of the host, spherical or ovoidal, 9.6–25.2 μ in diameter, with smooth membrane; exit-papillae single, more or less apical, very short; rhizoids few branched in the oospores of the host; zoospores spherical or elliptical, about 3–6 μ in diameter; resting spores unknown.

Hab. On oogonial walls of *Achlya racemosa* HILDEBR.

Hokkaido: Prov. Ishikari; Kotoni (May 25, 1932. Y. TOKUNAGA), Sapporo (June 4, 1932. Y. TOKUNAGA).

Distrib. Europe, N. America and Japan.

3. *Rhizophidium fusus* (ZOPF) A. FISCHER

(Pl. XI, fig. 4)

in RABENHORST's Krypt. Fl. I, 4, p. 99, 1892; v. MINDEN, in Krypt. Fl. Mark Brand, V, p. 330, 1915.

Syn. *Rhizidium fusus* Zopf, in Nova Acta Acad. Leop. Halle, XLVII, p. 199, pl. VII, figs. 9–12, 1884.

Zoosporangia epibiotic, spindle-shaped, slender, with a fine pedicel from which a long branched, rhizoid arises; zoospores liberating through an apical pore, globular, with a single cilium; resting spores unknown.

Hab. On *Surirella* sp.

Hokkaido: Prov. Ishikari; Maruyama near Sapporo (Aug. 31, 1931. Y. TOKUNAGA).

On *Pinnularia* sp.

Hokkaido: Prov. Ishikari; Sapporo (Sept. 6, 1931. Y. TOKUNAGA).

Distrib. Europe and Japan.

4. *Rhizophidium globosum* (A. BRAUN) SCHRÖTER

(Pl. XI, fig. 5)

in Krypt. Fl. Schlesien, III, 1, p. 191, 1889; SERBINOW, in Scripta bot. hort. Petrop. XXIV, p. 160, pl. V, figs. 1–3, 1907; v. MINDEN, in Krypt. Fl. Mark Brand. V, p. 319, 1915.

Syn. *Chytridium globosum* A. BRAUN, in Abhandl. Berl. Akad. Wiss. p. 61, pl. II, figs. 14–20, 1855. *Phlyctidium globosum* SOROKIN, in Rev. Mycol. p. 81, pl. LXXIX, fig. 93, pl. LXXX, fig. 100, 1889.

Zoosporangia spherical, 9.6–24 μ in diameter with smooth, double layered membrane and 1–4 exit-papillae, with a branched rhizoid at the base; zoospores 2–3 μ in diameter, with a small oil drop and a long cilium; resting spores not observed.

Hab. On cell walls of *Spirogyra* sp.

Hokkaido: Prov. Ishikari; Sapporo (July 14, 1932. Y. TOKUNAGA).

Distrib. Europe and Japan.

In our collections, only the zoosporangia were observed but not the resting spores. It has been stated that the resting spores of this fungus are spherical, brownish and echinulated.

5. *Rhizophidium sphaerocarpum* (ZOPF) A. FISCHER

(Pl. XI, figs. 6–9)

in RABENHORST's Krypt. Fl. I, 4, p. 95, 1892; Atkinson, in Bot. Gaz. XLVIII, p. 326, fig. 3, 1909; v. MINDEN, Krypt. Fl. Mark Brand. V, p. 325, 1915; SKVORTZOW, in Arch. Protist. LI, p. 430, 1925; ibid. LVII, p. 206, 1927.

Syn. *Rhizidium sphaerocarpum* ZOPF, in Nova Acta Acad. Leop. Halle, XLVII, p. 202, pl. XIX, figs. 16–27, 1884.

Zoosporangia single or in group on the cell wall of the host, spherical or ovoidal, with smooth membrane which consists of two lamellae, 11–24 μ long, 10–20 μ wide; exit-pores single, circular in shape, very large, 4–6 μ in diameter; rhizoids branched poorly or richly; zoospores globular, 1.5–2 μ in diameter, with a small oil globule and a long cilium; resting spores found as in sporangium, spherical, 12–18 μ in diameter, with a large oil drop, thick membrane and a few branched rhizoid.

Hab. On cell walls of *Spirogyra* sp.

Hokkaido: Prov. Ishikari; Sapporo (July 2, 1931; July 24, 1931. Y. TOKUNAGA).

On cell walls of *Gonatonema* sp.

Hokkaido: Prov. Ishikari; Takinosawa near Jozankei (July 19, 1932. Y. TOKUNAGA).

On cell walls of *Cladophora* sp.

Hokkaido: Prov. Kushiro; Lake Akan (Aug. 20, 1931. Y. TOKUNAGA). On cell walls of *Oedogonium* sp.

Hokkaido: Prov. Ishikari; Sapporo (July 9, 1932. Y. TOKUNAGA).

Distrib. Europe, N. America, Manchuria and Japan.

This is one of the most common species in this genus and it attacks the vegetative and sexual cells of various green algae. Among collections of the writer, the specimens found on *Cladophora* sp. and some on *Spirogyra* sp. are provided with a well developed and richly branched rhizoid. This form seems to differ to some extent from the fungus described by ZOPF and ATKINSON. It may be related to *Rhizophidium dubium* described by DE WILDEMAN[1]. The writer proposes, however, to treat it as a form of *Rhizophidium sphaerocarpum* (ZOPF) A. FISCHER.

Rhizidiomyces SCHENK

in Nova Acta Acad. Leop. Halle, XLVII, p. 183, 1884.

6. *Rhizidiomyces apophysatus* ZOPF

(Pl. XI, fig. 10)

in Nova Acta Acad. Leop. Halle, XLVII, p. 188, pl. XX, figs. 1–7, 1884; A. FISCHER, in RABENHORST's Krypt. Fl. I, 4, p. 111, 1892; v. MINDEN, Krypt. Fl. Mark Brand. V, p. 347, 1915; COKER, Saproleg. p. 186, pl. LXIII, figs. 1–14, 1923.

Zoosporangia solitary or aggregated on the oogonial wall of the host, spherical, varying greatly in size, up to 40 μ in diameter, with roughly hirsute membrane, provided with an intramatrical, somewhat expanded body at the base, from which a branched rhizoid arises, germinating by a long exit-tube; zoospores subspherical, with an apical cilium, formed in bladder as in Pythium; resting spores unknown.

Hab. On oogonial walls of *Achlya flaggelata* COKER.

Hokkaido: Prov. Ishikari; Shinkotoni (May 28, 1932. Y. TOKUNAGA).

Distrib. Europe, N. America and Japan.

Podochytrium PFITZER

Sitzungsber. niederrhein. Ges. Natur- u. Heilk. Bonn, p. 62, 1870.

Syn. *Septocarpus* ZOPF, Nova Acta Acad. Leop. Car. LII, p. 348, 1888.

7. *Podochytrium clavatum* PFITZER

(Pl. XI, figs. 11–12)

Sitzungsber. niederrhein. Ges. Natur- u. Heilk. Bonn, p. 62, 1870; v. MINDEN, Krypt. Fl. Mark Brand. V, p. 353, 1915.

1) Mém. soc. belge micr. XIX, p. 112, pl. III, figs. 26–28, 1895.

Syn. *Septocarpus corynephorus* ZOPF, in Nova Acta Acad. Leop. Car. LII, p. 348, pl. XX, figs. 21–28, 1888; A. FISCHER, RABENHORST's Krypt. Fl. I, 4, p. 113, 1892.

Zoosporangia epibiotic, long pyriform, 14.4–19.2 μ long, 7.2–8.4 μ wide; pedicels cylindrical, 3.6–8.4 μ long; rhizoids branched, later hardly visible; zoospores globular, small, with a single cilium; resting spores unknown.

Hab. On *Tabellaria flacculosa* KÜTZING.

Hokkaido: Prov. Iburi; Chitose (Oct. 11, 1931. Y. TOKUNAGA).

Distrib. Europe, N. America and Japan.

Chytridium A. BRAUN

Erscheinungen der Verjüngung, p. 198, 1850; Abhandl. Berl. Akad. Wiss. p. 74, 1855.

8. *Chytridium minus* LACOSTE et SURING

(Pl. XI, fig. 13)

in RABENHORST's Fl. Eur. Alg. III, p. 277; SACC. Syll. Fung. XIV, p. 446; v. MINDEN, Krypt. Fl. Mark Brand. V, p. 366, 1915.

Zoosporangia epibiotic on sexual cells of the host, solitary or aggregated, spherical or ovoidal, 12–14.4 μ in diameter, with smooth membrane, an apical papilla and a broad, short rhizoid; zoospores globular, about 2.4 μ in diameter, with a single cilium; resting spores endobiotic, up to seven in a host cell, spherical, 13.2–15.6 μ in diameter, with smooth, thick membrane and a large oil drop.

Hab. On oogonia of *Oedogonium* sp.

Hokkaido: Prov. Ishikari; Sapporo (July 9, 1932. Y. TOKUNAGA).

Distrib. Europe and Japan.

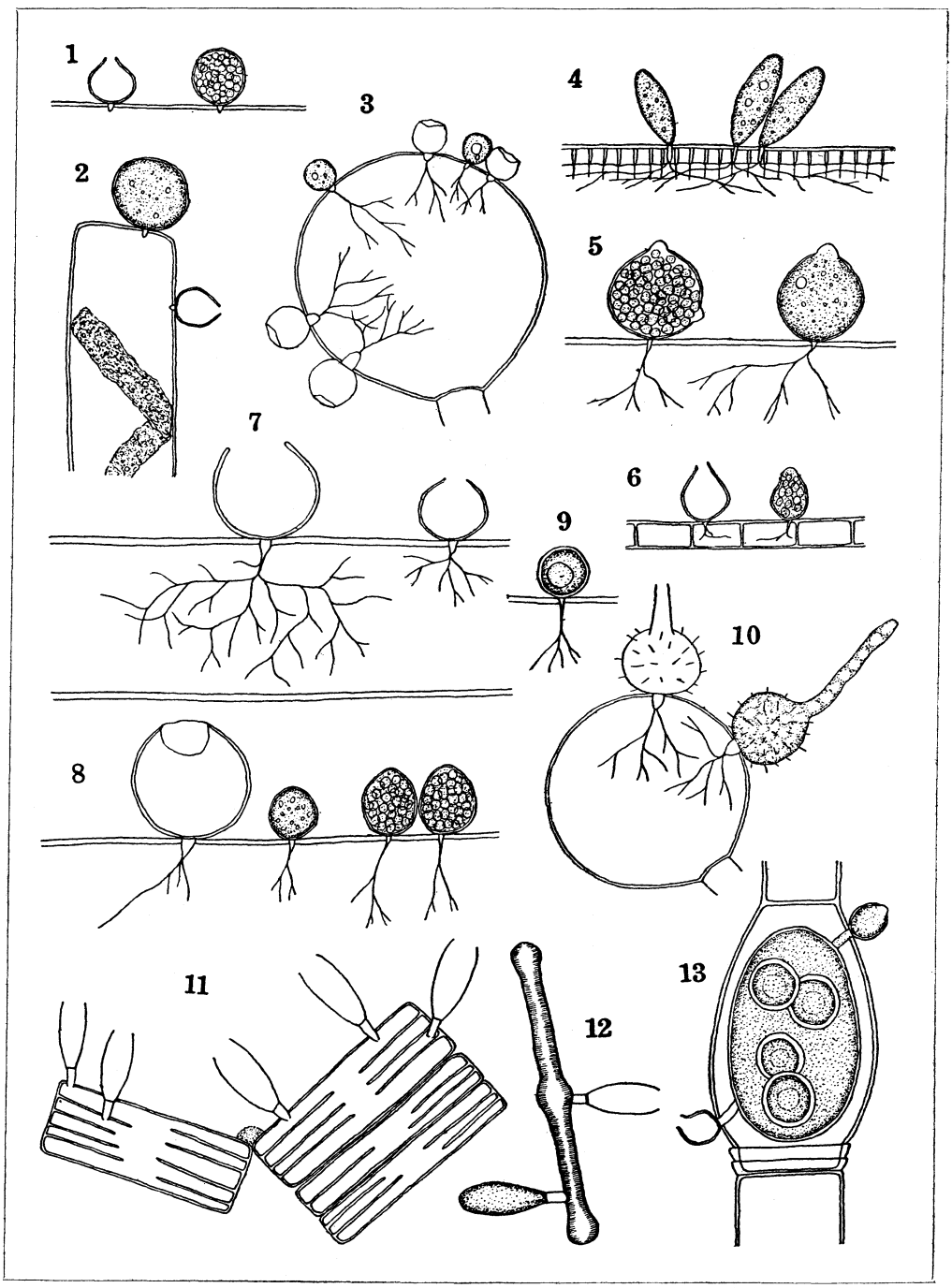
This species was described from Holland and only the zoosporangium has been known up to the present. Our fungus was found on young oogonia of Oedogonium in which the oospore has not yet been formed. The resting spores were observed in large number, but their germination was not observed.

9. *Chytridium olla* A. BRAUN

Erscheinungen der Verjüngung, p. 198, 1850; Abhandl. der Berl. Akad. p. 23, pl. I, figs. 1–10, 1855; DE BARY, Morph. u. Phys. der Pilze, p. 177, fig. 76, 1884; SCHRÖTER, in Krypt. Fl. Schlesien, III, 1, p. 192, 1889; A. FISCHER, in RABENHORST's Krypt. Fl. I, 4, p. 125, 1892; SERBINOW, in Scripta bot. hort. Petrop. XXIV, p. 161, pl. V, figs. 9–10, 1907; v. MINDEN, Krypt. Fl. Mark Brand. V, p. 365, 1915.

Syn. *Euchytrium olla* (A. BRAUN) SOROKIN, in Arch. bot du Nord. de la France, II, p. 19, fig. 19.

Zoosporangia epibiotic on the oogonium of the host, solitary or aggregated, ovoidal, smooth-walled, 36–42 μ long, 21.6–26.4 μ wide, with an apical papilla



Y. TOKUNAGA del.

surmounted with an operculum and a stout, tubular rhizoidal hypha; zoospores discharging after the dehiscence of operculum, globose, uniciliate, with a single oil globule; resting spores endobiotic in the oospore of the host, usually gregarious, spherical, 24–32.4 μ in diameter, with smooth, thick membrane and a large oil drop.

Hab. On oogonia of *Oedogonium* sp.

Hokkaido: Prov. Ishikari; Maruyama near Sapporo (June 21, 1933. Y. TOKUNAGA).

Distrib. Europe, N. America and Japan.

Botanical Institute, Faculty of Agriculture,
Hokkaido Imperial University,
Sapporo, Japan.

Explanation of Plate

The magnifications of figures are ×400 in fig. 3 & 10 and ×650 in the others.

1–2. *Phlyctidium brevipes*: Young and empty zoosporangia.

3. *Rhizophidium carpophylum*: Young and empty zoosporangia on the oogonium of *Achlya racemosa*.

4. *Rhizophidium fusus*: Young zoosporangia.

5. *Rhizophidium globosum*: Young and mature zoosporangia.

6–9. *Rhizophidium sphaerocarpum*: 6. Zoosporangia on *Gonatonema* sp. 7. Zoosporangia on *Cladophora* sp. 8. Zoosporangia on *Spirogyra* sp. 9. Resting spore.

10. *Rhizidiomyces apophysatus*: Empty and germinating zoosporangia on the oogonium of *Achlya flaggelata*.

11–12. *Podochytrium clavatum*: Zoosporangia on *Tabellaria flacculosa*.

13 *Chytridium minus*: Zoosporangia and resting spores.

MATERIAE FLORAE BRYOPHYTAE NIPPONICAE

AUCTORE

EIKITI IHSIBA

Brachythecium populeum (HEDW.)

var. ***brevinerve*** IHSIBA, nov. var.

Folia anguste ovato-lanceolata, longe acuminata, nervis brevioribus.

Hab. Minô, Settu. (N. UI) Mt. Katuragi, Izumi. (T. NAKAZIMA, 1934) Nokawa, Iyo. (IMAIZUMI, 1934) Uzi, Yamasiro. (M. AZUMA, 1934).

var. ***lanceolatifolium*** IHSIBA, nov. var.

var. *angustii* affinis, sed folia lanceolata, nervis brevioribus.

Hab. Atasika, Kii. (T. KOIDE, 1933).

Brachythecium angustifolium IHSIBA. nov. sp.

Corticolum, gracile, longe repens. Folia anguste lanceolata, longe attenuata, integra vel ad apicem minute serrata, margine plus minusve involuta; cellulis anguste rhomboideo-linearibus ca. 78 × 8 μ., alaribus quadratis vel rectangularibus, minutis, ca. 15 μ. Perichaetium lanceolati-acuminatum, subintegrum, enervum. Seta ca. 12 mm. longa, rubra, laevis. Capsula ovalis, inclinata, minutis, fuscescens. Operculum ?

Hab. Mt. Hakkôda, Mutsu. (S. MURAI 1933).

Brachythecium Nakazimae IHSIBA. nov. sp.

Latercolum, gracile, sordido-viride. Caulis pergracilis, longe repens. Folia caulinis ovate-lanceolata, longe attenuata, integra vel ad apicem indistincte serrata; cellulis lineari-rhomboideis, alaribus minutis, brevi-rectangularibus; nervo ultra medium evanido. Seta ca. 8 mm. longa, purpurea. Perchaetium e late-basi piliformi-acuminatum. Capsula subinclinata, longe-elliptica. Operculum obtusum, erostratum.

Hab. Tokyo, Musashi. (T. NAKAZIMA, 1929).

Breidleria homaliaceus (BESCH.)

var. ***longiseta*** IHSIBA. nov. var.

Saxicola. Seta ultra 3 cm. longa.

Hab. Takayamamura, Settu. (N. UI, 1934.).

[Trans. Sapporo Nat. Hist. Soc., Vol. XIII, Pt. 4, 1934]

Catharinaea Haussknechtii (J. M.)

var. ***elamellata*** IHSIBA et NAKAZIMA. nov. var.

Planta typicae peraffinis, sed nervo folii elamellato, rarius cum uniprocesso unicelluli evanido.

Hab. Ame, Iga. (T. NAKAZIMA, 1933).

Fissidens Uii BROTHERUS.

var. ***brevifolius*** IHSIBA. nov. var.

Folia elliptica, subobtusa, nervo undulato.

Hab. Kamiakitumura, Kii. (N. UI, 1934).

Iishibaea japonica BROTH. et OKAM.

var. ***angustifolia*** IHSIBA, nov. var.

I. japonicae peraffinis. Folia anguste-lanceolata vel lanceolata, subpiliformi-acuminata. Seta 6-10 mm. longa. Capsula cylindrica, erecta vel subcurvata. Operculum?

Hab. Hakkôda, Mutsu. (S. MURAI, 1933).

Distichophyllum TUTIGAE IHSIBA. nov. sp.

Corticolum? Planta fere 4 cm. longa, flavo-virens, inferne lutea, plus minusve ramosa, complanate perspicienda. *F. C.* longe elliptica, brevi-cuspidata, integra; limbo angusto; cellulis rhomboideis, incrassatis, inferne longi-rhomboideis, omnibus hyalinis; nervo tenue longe-infrae apicem evanido.

Hab. Mt. Kama, Ise. (Y. TUTIGA, 1934).

Isothecium diversiforme (MITT.)

var. ***minor*** IHSIBA, nov. var.

Corticolum, gracile, atro-viride. Folia ovalis, breve-attenuata, subintegra; cellulis anguste-rhomboideis-brevi-linearibus. Seta 4–5 mm. longa. Capsula longe-ovata vel oblonga. Perichaetium minute serratum.

Hab. Minô, Settu. (N. UI, 1933).

Philonotis Uii IHSIBA. nov. sp.

Terricola; Planta laete viridis, usque ad 3 cm. alta, inferne brunneo-rhadiculosa. Folia patentia, late-lanceolata, longe attenuata, subfiliformia, basi excepta minute serrata; nervo cum apicem folii evanido; cellulis brevi- linearibus, subpapillosis, subobscuris, infernibus rectangularibus hyalinis 15–31 × 15 μ. Seta 4 cm. longa, purpurea. Capsula erecta. Dioica?

Hab. Mt. Iwawaki, Kawati. (N. UI, 1934).

Sphagnum hakkodense WAR.

f. ***purpurea*** IHSIBA, nov. form.

Planta purpurascens.

Hab. Mt. Hakkôda, Mutsu. (S. MURAI, 1933).

Neckera pusilla MITT.

var. ***longinervia*** IHSIBA, nov. var.

Corticola, subpusilla. Folia ovato-oblonga vel oblonga, subobtusa, subintegra; nervo bino, brevi vel ultra medium evanido.

Hab. Mt. Kibune, Yamashiro. (R. TOYAMA, 1934.).

Cyatophorella Nakazimae IHSIBA, nov. sp.

Monoica? Corticola, pusilla, nitido-viridis-fuscosa. Folia secunda, pugioformia, brevi-obtusae terminata. integra vel superne minute serrata; cellulis anguste-rhomboideio-oblongis, 50×1-2 μ.; limbo indistinctio; nervo ad medio desunt; amphigastria minuta, longiovata, subobtusi-attenuata, nervis bina vel indistincta. Seta 2 mm. Capsula ovalis; Operculum longe terminatum.

Hab. Mt. Usitaki, Izumi. (T. NAKAZIMA, 1934).

var. ***brevinerve*** IHSIBA, nov. var.

Nervo folii breviori vel indistincto.

Hab. Mt. Usitaki, Izumi. (T. NAKAZIMA, 1933).

Plagiothecium longisetum LINDB.

var. ***brevinerve*** IHSIBA, nov. var.

Nervo folii infra medium dissoluto.

Hab. Mt. Hakkôda, Mutsu. (S. MURAI, 1933).

Trichostomum robustum BROTH. ms.

Planta 2 cm. longa. Ad *T. Uematui* et *Tortella tortuosae* affinis, sed folia anguste-oblonga, longe lineariae attenuata, elimbata; nervo fusco fere cum apice vel breviter excedente; cellulis basilaribus rectangularibus, hyalinis.

Hab. Mt. Yatu, Sinano. (IHSIBA).

Madotheca kôtukensis IHSIBA, nov. sp.

Corticola? Planta atrofuscescens, 8 cm. longa. Folia caulis ovata, rotundato-obtusa, integra vel minus crenata; cellulis 20-33 μ. Amphigastria ca, quadrato-rotundata, perremote obtuso-longispinosa vel subintegra; lobulus ovalis, remote spinosus vel destitutus.

Hab. Hinomura, Kôtuke. (K. MOMOI 1933).

Mastigobryum Pompeanum SANDE.

var. ***Uedae*** IHSIBA, nov. var.

Planta 6 cm longa, laete viridis, inferne brunnea. Folia ovato-ovalia, apice trilobata, rarus magis lobata, margine minute rotundato-obtusa crenata vel undulata; amphigastria subreniformequadrata, multifida, hic illic spinosis.

Hab. Kusuyama, Karahuto. (K. UEDA 1931).

SECHS NEUE ARTEN DER CHILOPODEN AUS JAPAN

VON

YOSIOKI TAKAKUWA

(Mit 13 Textabbildungen)

(1) ***Thalthybius tenuicolis*** n. sp.

Körperlänge 40 mm. Grauviolettgelb. Beinpaare 72–87. Kopfschild sehr klein, fast rundlich, aber etwas breiter als lang; sieben bis acht Segmente nächst dem Kopf halsartig deutlich verengt; von 10. an allmählich vergrössert, 35.–60. am grössten, Körperende wieder verengt. Antennen keulig durch Verdickung der 6 letzten Glieder, die ventral sehr dicht pelzig und dorsal spärlich behaart sind; 9. und 13. Glieder mit etwa 20 Sinneszapfen, das Endglied kegelig, $1\frac{1}{2}$ mal so lang wie breit, die proximale Glieder spärlich behaart.

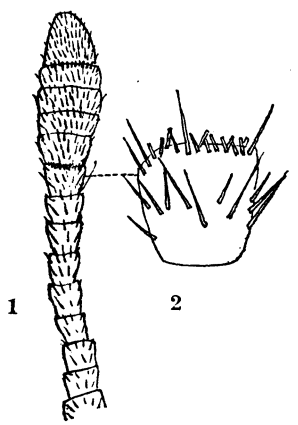


Fig. 1.

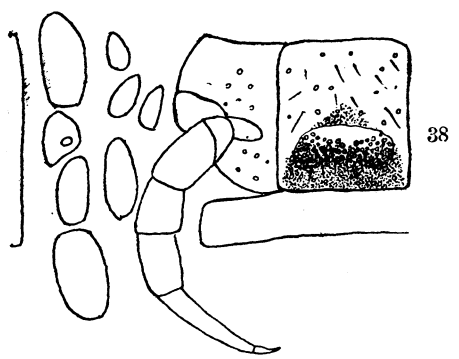


Fig. 2.

Fig. 1. *Thalthybius tenuicolis*, 1. Antenne, 2. 9. Glied derselben, von der dorsal Seite gesehen.
Fig. 2. *Thalthybius tenuicolis*, 38. Sternit u. die rechte Pleuralseite.

Labrum fast unentwickelt, wenig chitinisiert, in der Mitte glatt, ein wenig eingebuchtet und seitlich mit 3 dreieckigen Spitzchen. Zähne der Mandibel etwa 9. 1. Maxille ohne Aussentaster. Klaue der 2. Maxille dicht gekämmt.

[Trans. Sapporo Nat. Hist. Soc., Vol. XIII, Pt. 4, 1934]

Kieferfuss mit schwachen aber vollständigen Chitinlinien, kurz ohne Zahnbildung und von dem Stirnrand bei weitem entfernt. Unglum glatt. Sternit länger als breit, mit Ausnahme des 1. und der vier letzten, haben alle Sternite biskuitförmiges oder querovales Porenfeld, das von dem anderen dadurch scharf begrenzt ist, dass es und seine Umgebung auch dunkelviolett gefleckt und etwas erhöht ist. Tergit ohne Furche. Endbeinsternit nach hinten ziemlich verschmälert, Hinterrand ungefähe rundlich. Endbein sehr verdickt, Hüfte mit 2 grossen, teilweise vom Sternit verdeckten Poren, Tarsus zweigliedrig und ohhe Prätarsus. Terminalporen fehlen.

Fundort: Tokyo, Kagoshima, Sibushi (bei Kagoshima), Hiroshima.

Vergleich der 3 ähnlichen Arten.

	T. microcephalus	*T. melanostigma*	*T. tenuicolis* n. sp.
Beinpaare	67-79	101	73-87
2. Maxille	Syncoxit vorn mit Spuren einer Mediannaht.	ohne Spuren.	ohne Spuren.
Porenfeld	fehlt an dem 1. und den 2 letzten Sterniten.	fehlt an dem 1. und den 2 letzten Sterniten.	fehlt an dem 1. und den 4 letzten Sterniten.
Endbein-Sternit	trapezförmig, breit, hinten geradlinig.	trapezförmig.	nach hinten mässig verschmälert, hinten etwa rundlich.

(2) ***Nesogeophilus tiosianus*** n. sp.

Körperlänge 20 mm. Grundfarbe gelblich. Beinpaare 53. Kopfschild etwas länger als breit, ohne Stirnfurche. Antennen schlank, reichen bis zum Hinterrand des 4. Tergits. Clypeus gleichmässig gefeldert. Mittelteil des Labrums 4 zähnig, Seitenteil glatt. 1. Maxille ohne Aussentaster, Coxalfortsatz deutlich abgesetzt. Kieferfüsse haben nur am Tarsus einen winzigen Zahn, Unglum schlank, innen glatt; geschlossen, erreichen sie die Ungla gerade den Stirnrand; Chitinlinien vollständig. Ventralporen sind auf dem 1. bis vorletzten beintragenden Segment; Porenfeld queroval, fast den $\frac{1}{2}$ Teil der Hinterhälfte des Sternits einnehmend und auf den Hinterensegmenten in 2 Felder geteilt. Ohne Grube am Vorderrand des Sternits. Sternit des Endbeinsegments breit, trapez-

förmig, 7–8 Hüftdrüsen münden buschelweise in eine Ventralgrube, die sich durch einen Spalt neben dem Seitenrande des Sternits öffnet; hinten ohne Einzelporus. Ohne Terminalporen. Gonopoden lang und zweigliedrig.

Fundort. Tyosi (Tiba).

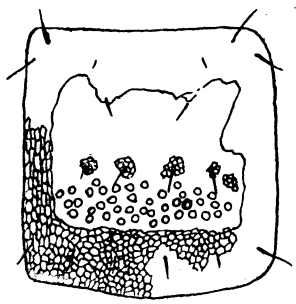


Fig. 3.

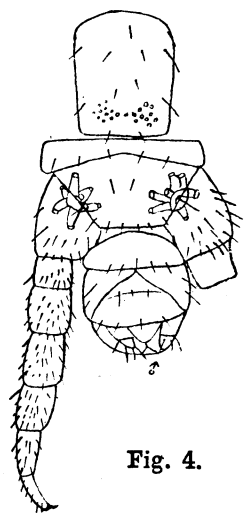


Fig. 4.

Fig. 3. *Nesogeophilus tiosiensis*, Sternit.
Fig. 4. *Nesogeophilus tiosiensis*, Körperende, von der Ventralseite gesehen.

Vergleich zwei ähnlicher Arten

	N. laticolis	*N. tiosianus* n. sp.
Beinpaare	♂ 51, ♀ 55	♂ u. ♀ 53
Ventralporenfeld	sehr gross, fast die ganze Hinterhälfte des Sternits einnehmend; auf hinteren Segmenten in 2 immer noch grosse Felder geteilt; die letzten 3 Felder sind erst wieder einheitlich.	kleiner, fast ½ einnehmend; nicht einheillich.
Seitenteile des Labrums	gefranst.	glatt.

(3) ***Nesogeophilus kozuensis*** n. sp.

Körperlänge 30 mm. Hellgelb und etwas rötlch. Kopf und Kieferfuss braun. Beinpaare 55. Kopfschild klein, so lang wie breit, Pleurocoxalnaht

verläuft schräg bis zum Seitenrand. Clypeus gleichmässig gefeldert, mit ungefähr 10 Borsten, welche in der symmetrischen Linien geordnet sind, doch ohne Clypealarea. Mittelteil des Labrums 3-5 zähnig, Seitenteil glatt, aber mit einigen schwachen Zähnchen. 1. Maxille ohne Aussentaster. Hüften der 2. Maxille ohne Mediannaht, ganz verwachsen, Klaue kurz und einfach. Mandibel hat nur einen Besatz von Kammzähnen. Geschlossene Kieferfüsse reichen nicht bis zum Stirnrand, Chitinlinien vollständig, Tarsunglum mit einem kleinen und stumpfen Basalzahn, Unglum innen glatt, Hüfte ohne Zahn. Basalschild breit, sein Hinterrand ein wenig breiter als der Vorderrand des 1. Tergits. Tergit zweifurchig. Die 9.-18. Sternite haben an den Vorderrändern Quergruben, welche fast $\frac{1}{2}$ Breite des Sternits einnehmen und nach hinteren Segmenten zu immer kleiner, endlich beim 18. sehr klein werden; jeder Hinterrand hat der Grube gegenüber einen kleinen Höcker. Jedes Sternit hat mit Ausnahme von dem letzten die Ventralporen. Porenfeld gross und nimmt den grössten Teil der hinteren Hälfte des Sternits ein; Porenfelder sind querlinsenförmig auf den vorderen Segmenten und von dem 17. in 2 laterale Haufen eingeteilt, die immer porenärmer werden. Sternit des Endbeinsegments breiter als lang, trapezförmig, nach hinten merklich verschmälert, Hinterrand fast geradlinig; Ausmündung der etwa 10 Hüftendrüsen öffnet sich in eine Grube neben dem Sternitrand, hinten ohne Einzelporus. Tarsus zweigliedrig, Prätarsus krallenförmig. Terminalporen vorhanden.

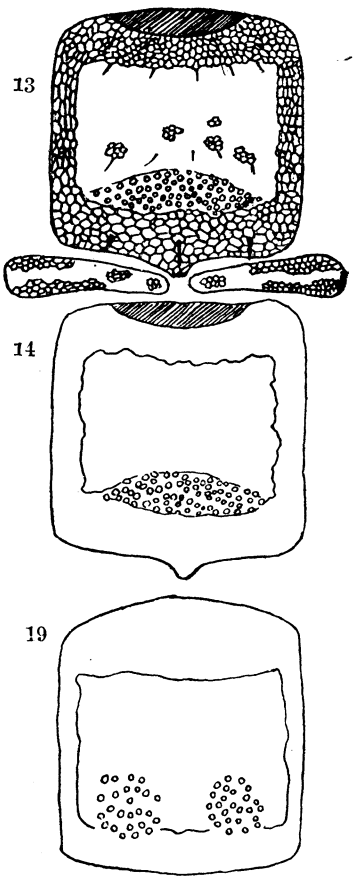


Fig. 5.

Fig. 5. *Nesogeophilus kozuensis*, 13. 14. u. 19. Sternit.

Fundort: Kôzu (Kanagawaken).

Schlüssel für zwei ähnlichen Arten

	Nesogeophilus backströmi	*N. kozuensis* n. sp.
Vorder Grube	Fuchsgelb, fast die ganze Breite des Sternits einnehmend.	bräunlichgelb, fast $\frac{1}{2}$ Breite des Sternits einnehmend, nach hinten allmählich verkleinert, dadurch beim 18. sehr klein.
Ventralporenfeld	$\frac{1}{3}$–$\frac{1}{2}$ der Hinterhälfte einnehmend und auf den vorderen Segmenten ist es in der Mitte verschmälert.	$\frac{5}{6}$ einnehmend, querlinseförmig.
Labrum	Seitenteil gefranst.	glatt, aber innen mit einigen Zähnen.
Sternit	viel breiter als lang.	etwas länger als breit.

(4) ***Nesogeophilus littoralis*** n. sp.

Die nähere Beschreibung dieses Tieres ist nicht gegeben, aber sie ist aus der folgenden vergleichenden Tabelle leicht zu verstehen.

Vergleich der zwei ähnlichen Arten

	N. kozuensis	*N. littoralis* n. sp.
Körperlänge	20 mm.	25 mm.
Beinpaare	51, 53.	41, 43.
Farbe	hellgelb, Kopf etwas bräunlich.	rötlichgelb (im Körper gleichen Farbenstoff enthaltend), die vordere Segmente mit 2 paramedianen, tief gelbrötlichen Längssträngen, an der hinteren immer unsichtbarer.
Seitenteile des Labrums	glatt.	mit manchen Borsten.
Borstung des Körpers	spärlich und kurz.	zahlreich und lang.
Grube am Vorderrande	am 9.–18. Sternit.	am 8.–13.
Ventralporenfeld	mit höchstens 70 Poren, in 1. Sternit etwa 20.	höchstens 35, in 1. Sternit etwa 7–8.

Endbein	beim ♂ stark, ventral pelzig behaart. Endkralle so gross wie die der vorangehenden Beine.	beim ♂ sehr stark, ventral stark pelzig behaart. Endkralle merk lich kleiner als die der vorangehenden.
Aufenthaltsorte	unter den Steinen im Sandboden der Meeresküste.	unter den Steinen des Meeresgestades.
Fundort	Kôzu.	Manazuru.

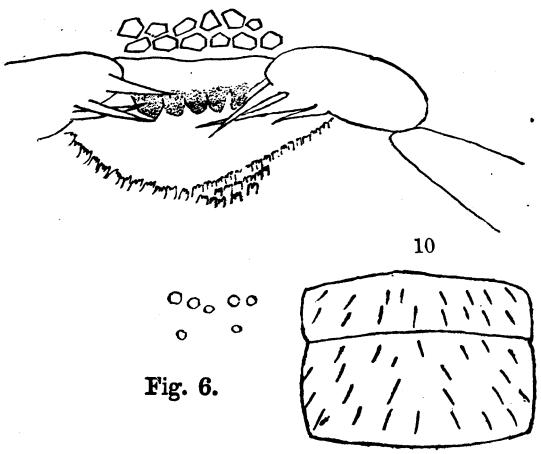


Fig. 6.

Fig. 7.

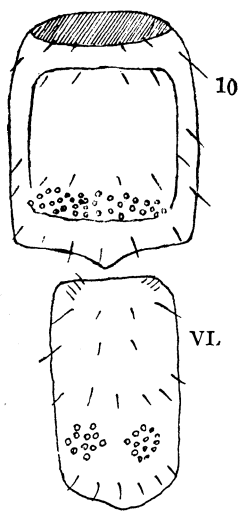


Fig. 8.

Fig. 6. *Nesogeophilus littoralis*, Labrum.
Fig. 7. *Nesogeophilus littoralis*, 10. Tergit.
Fig. 8. *Nesogeophilus littoralis*, 10. 20. u. das vorletzte (vl) Sternit.
Fig. 9. *Geophilus monoporus*, 1 Clypeus 2 20. Sternit.

(5) ***Geophilus monoporus*** n. sp.

Körperlänge 45 mm. Grundfarbe gelblich. Beinpaare 87. Kopfschild so lang wie breit, ohne Stirnfurche. Behaarung des Rumpfes kurz und spärlich. Geschlossen, erreichen die Kieferfüsse den Stirnrand nicht, Hüften vorn ungezähnt, Chitinlinien fehlen, alle Glieder ohne Zähne, Kralle innen glatt. Antennen sind fadenförmig und reichen bis zum Hinterrand des 4. Segmentes. Basalschild breit. Clypeus gleichmässig gefeldert, 3 Paar Borsten sind zwischen Labrum und Stirnrand. Labrum hat einen

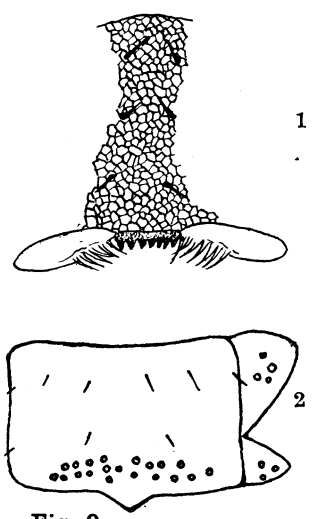


Fig. 9.

kleinen Mittelteil mit 7 Zähnchen und grossen gefransten Seitenteile. 1. Maxille mit 2 Paar grossen bestachelten Aussentastern, beide Hüften ganz verwachsen. Klaue der 2. Maxille lang, spitz, einfach und überrägt die Nachbarborste, beide Hüften verwachsen. Alle Sternite ohne vordere Gruben, aber eine Anzahl von vorderen Sterniten haben eine kleinen, nach hinten gerichteten Vorsprung in der Mitte des Hinterrandes. Sternit von 1. bis etwa 30. mit Ventralporen in eine schmalen Querband vor der dem Hinterrand. Sternit des Endbeinsegments so lang wie breit, nach hinten verschmälert, Hinterrand gerade, Hüfte mit 1 grosser Pore. Endkralle vorhanden. Tergit zweifurchig. Terminalporen vorhanden.

Fundort: Tyosi (Tiba)

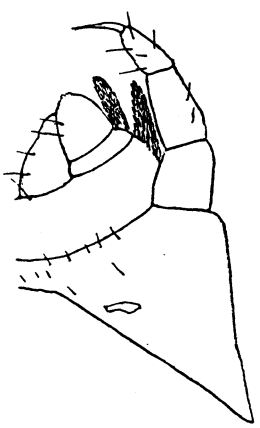


Fig. 10.

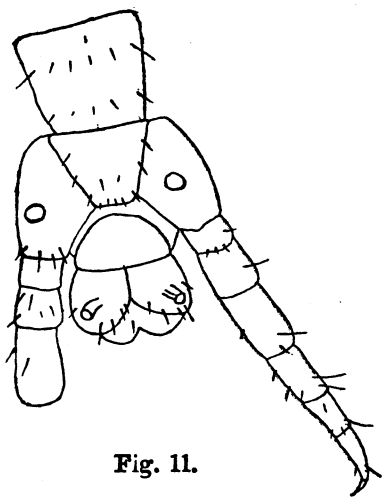


Fig. 11.

Fig. 10. *Geophilus monoporus*, 1. u. 2. Maxillen.
Fig. 11. *Geophilus monoporus*, Körperende.

(6) ***Crytops japonicus*** n. sp.

Körperlänge 25 mm. Gelblichbraun. Spärlich beborstet. Beinpaare 21. Kopf so lang wie breit, ungefurcht, kaum punktiert und hinten vom 1. Tergit überlagert. Vorderrand der Kieferfusshüften ist ungefähr gerade und zahnlos, aber hat einige Randborsten. Vom 3. oder 4. Tergit beginnen die Paramedian und Lateralfurchen, und ein Mediankiel ist vorhanden. Sternit hat Kreuzfurche, der Längsast ist länger und stärker als der Querast, aber erreicht nicht den Vorderrand. 21. Sternit hinten halbkreisförmig abgerundet. Koxopleuren hinten etwas vorgezogen und ohne Fortsatz, bogig abgerundet. Porenarea hat etwa 40 Poren, aber lässt das Endviertel davon frei. Das 20. Beinpaar der erwachsenen dicht kurz beborstet. Tarsus des 1.–19. Beinpaares ungeteilt,

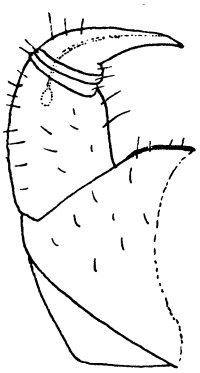


Fig. 12.

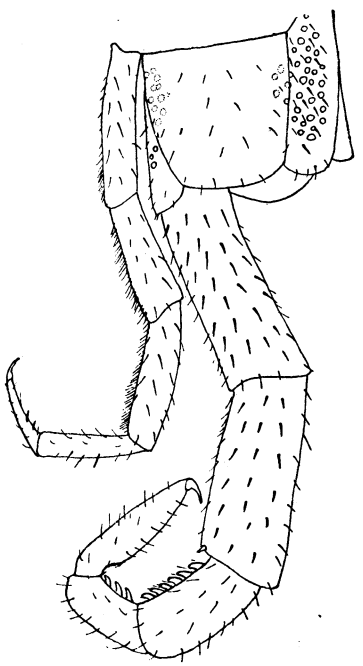


Fig. 13

Fig. 12. *Cryptops japonicus*, Kieferfuss, von der Ventralseite gesehen.

Fig. 13. *Cryptops japonicus*, Körperende, von der Dorsalseite gesehen.

aber das 20. und 21. geteilt. Endbein dorsal ungefurcht, Präfemur dorsal und ventral ohne kahle Area, gleichmässig beborstet. Femur am Ende hat teils den Zahn, teils keinen. Tibia am Ende ohne Zähnchen, die hat auch 6–7 Sägezähnchen und 1. Tarsus 3–5.

Fundort: Kokura (Kyusyu).

Diese Art unterscheidet sich von den verwandten Arten in folgenden Punkten.

	C. doriae	*C. japonicus* n. sp.
Coxopleurit	Porenarea hat 25 Poren, lässt das Enddrittel frei.	40 Poren, Endviertel frei.
Endbeinpräfemur	dorsal fast nackt.	dorsal und ventral mässig beborstet.
Sägezähnchen	Tibia 7-8.	6-7.
	1. Tarsus 4–5.	3-5.

Anmerkung: Bis zum heutigen Tage scheint irgend eine Art von den japanischen Cryptopiden noch niemals beschrieben zu sein. Es gibt noch einige andere Arten aus Kyusyu und Korea, aber ich habe leider noch keine Gelegenheit, sie genau zu untersuchen.

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HYDRACARINA FROM SAGHALIEN

BY

TOHRU UCHIDA

(With 6 Textfigures)

Through the kindness of Dr. MIYAJI, of the Otsu Limnological Station, two tubes containing water mites collected by him in Saghalien in June, 1934 were forwarded to the writer for identification. On examination it was found that they are all referable to known species, but no representative of the genera to which they belong has yet been recorded from Japan. Together with these specimens, those caught by Mr. S. MAKINO of our institute, in Saghalien, in July, 1932 are here reported. Before proceeding further, the writer's cordial thanks must be extended to the gentlemen above mentioned for placing materials at his disposal.

1) *Limnochares holosericea* (DE GEER)

The species is one of common arctic species hitherto found in several parts of Europe, Siberia and North America. One specimen was collected by Dr. MIYAJI from Lake Shibesan on June 15, 1934 and one obtained by him from Chachanuma, on the western coast of Saghalien on June 22, 1934.

Thyas barbigera VIETS

(Figs. 1-2)

The species is widely distributed in circumpolar regions such as Sweden, Denmark, Germany, France, Russia (from European to the Ussuri regions). In specimens examined by the writer the form of the posterior part of the genital claps is more or less variable. More than ten specimens were collected by Mr. S. MAKINO in the environs of Maoka in June, 1932.

Thyas oblongata (KOENIKE)

(Figs. 3-4)

This is the first record of the species from Asia, though it has been reported from Sweden, Norway, Denmark and Switzerland. The species is characterized in having small dorsal chitinous shields, a peculiarly curved inner margin of

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the first epimera and genital plates bearing two posterior suckers arranged about on a transverse line. A single female was obtained by Dr. D. MIYAJI from Lake Shibesan on June 15, 1934.

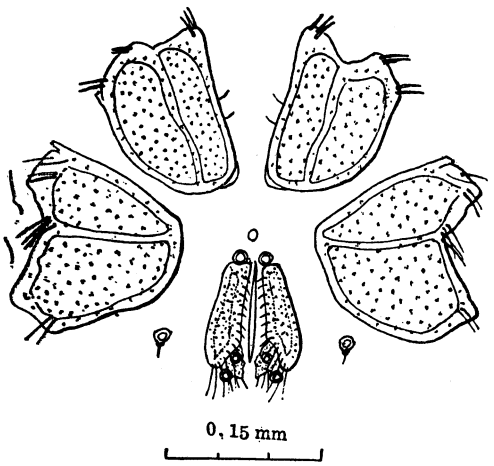


Fig. 1.

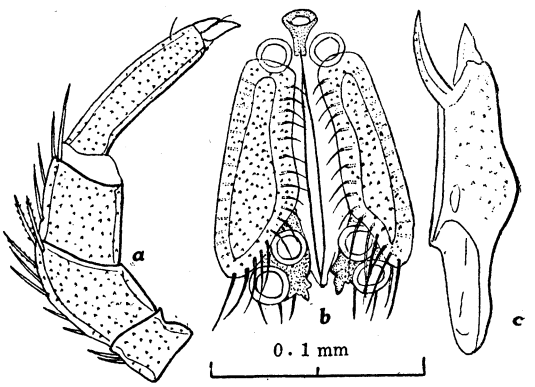


Fig. 2.

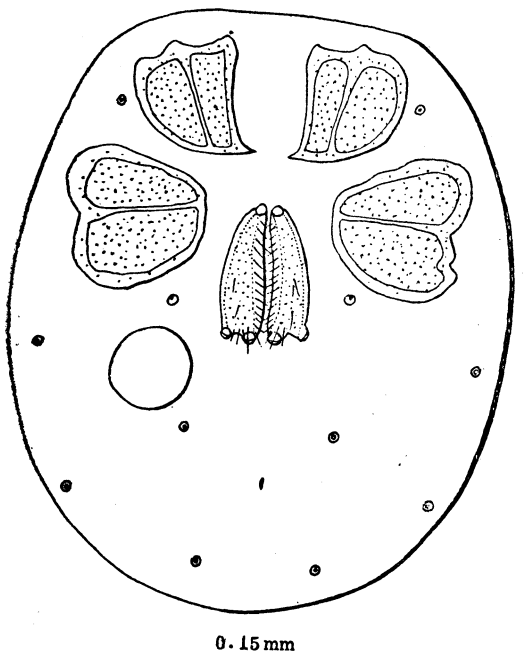


Fig. 3.

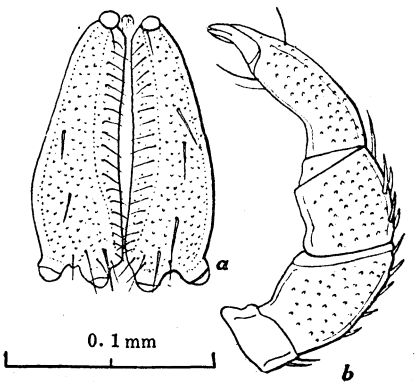


Fig. 4.

Fig. 1. *Thyas barbigera* VIETS; ephimera and genital plates.

Fig. 2. *Thyas barbigera* VIETS; a. right palp, b. genital plates, c. mandible.

Fig. 3. *Thyas oblongata* (KOENIKE); ventral view.

Fig. 4. *Thyas oblongata* (KOENIKE); a. genital plates, b. left palp.

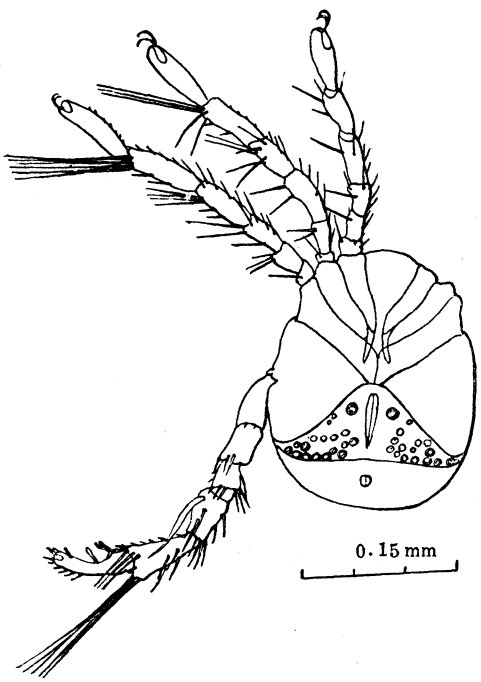


Fig. 5.

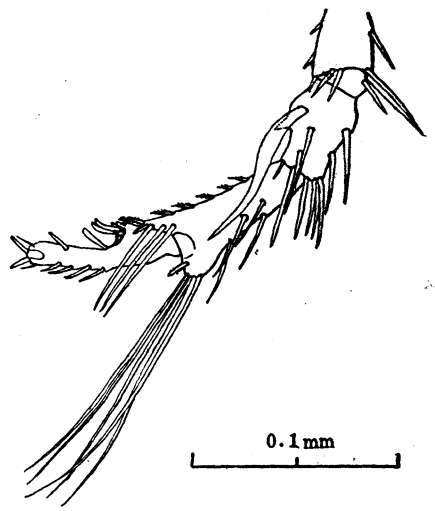


Fig. 6.

Fig. 5. *Forelia ligulifera* (PIERSIG); **ventral** view.

Fig. 6. *Forelia ligulifera* (PIERSIG); **terminal** segments of fourth right leg.

Forelia ligulifera (PIERSIG)

(Figs. 5-6)

The present species has so far been reported only from England and Germany. From the genital area and marked terminal segments of the specimen, there is no doubt that the Saghalien water mite belongs to the species. A single male was collected by Dr. D. MIYAJI from Lake Shibesan on July 15, 1934.

本會記事

昭和八年五月十四日昭和七年度總會ヲ兼ネ例會ヲ開キ、例會ニ於テ下記講演アリ。

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昭和八年七月三十一日本會々報第十三卷第一號發行サル。

昭和八年十二月十五日本會々報第十三卷第二號發行サル。

昭和八年十月廿八日例會ヲ開キ下記講演アリ。

一、アザミウマ類ノ研究　石田昌人君

一、滿蒙視察談　農學博士　栃内吉彦君

昭和九年六月廿日本會々報第十三卷第三號ヲ本會幹事長伊藤誠哉教授在職二十五年祝賀記念論文集トシテ發行サル。

昭和九年六月廿三日昭和八年度總會ヲ兼ネ例會ヲ開キ例會ニ於テ下記講演アリ。

一、蜘蛛ノ絲腺ト網トノ關係　農學士　齋藤三郎君

一、藻類特ニアマノリ屬ノ色素体ニ就テ　農學士　時田郁君

終リテ總會ニ移リ各幹事ノ事務報告ニ次テ會則一部ノ變更ヲナシタリ。尚役員ノ改選ヲ行ヒ舊幹事重任ニ決定、舊會計幹事林禎二郎●林彦一兩君轉任ニツキ島田昌一●武笠耕三兩君ヲ其後任トシテ會長ヨリ委囑セリ。

昭和九年十二月二十日本會々報第十三卷第四號發行サル。

本會々員大島金太郎君ハ昭和九年一月廿七日ニ、本會々員宮城鐵夫君ハ昭和九年八月廿七日ニ逝去サル。茲ニ謹ミテ哀悼ノ意ヲ表ス。

昭和九年十二月

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