

Contributiones ad Cognitionem Florae Asiae Orientalis

東亞植物考察

(continued from vol. III. p. 162.)

by

Geniti KOIDZUMI

Pleioblastus tectus Koidz. nov. sp.

Species nova quoad habitum, formam, consistentiam et puberitiam foliorum ad *Pleioblastum hodense* MAKINO proxime accedit, culmi vagina folii vaginaque fere semper glabra, merithallio glabro vel minute retrorsum puberulo tute distinguatur.

Planta 2-3 metralis, culmo 6 mm lato, superne ramoso, nodo glabro, merithallio 11-23 cm longo glabro; culmis hornotinis angustioribus ad nodum pilis longis apressis vel mox erectopatentibus dense albo-hirsuta, merithallio facie ab initio glabro vel minute retrorso-puberulo, vagina culmorum albida appendiculata vel inappendiculata margine tantum fimbriata cetera glabra; ramis novellis glabris vel minute retrorso-puberulis ad nodum hirsuta. Folia versus apicem ramii 7-10, culmi hornotini ad 16, persistentia; lamina lanceolato-linearis vel lineari-lanceolata 12-20 cm longa, 15-35 mm lata, crasse chartacea, molliter velutino-tomentella in utraque pagina, apice acuminata, basi late cuneata usque subrotundata, margine antrorsum setulifera; petiolis 3-5 mm longis utrinque dense rigideque pilosulis late alatisque; vagina margine tantum fimbriata cetera glabra vel nonnulla superne pilosula, saepe purpurascentia; setae orales albae vel candidae laeves flexuosae.

Nom. Jap. *Miyako-nezasa*

Hab. Japonia: Kyoto (lg. G. KOIDZUMI ! 3 Dec. 1934.)

Sasa (Moniliocladae) **phyllophorrhachis** Koidz. nov. sp.

Species nova *Sasam atagoensem* Koidz. proxima tamen differt vaginis glaberrimis.

Culmus 1 metralis supra ramosus glaberrimus, infra nodum pruinosis, ramis erectiusculis; nodo globoso-inflato; vagina quam internodium breviora plus minus appendiculata praeter marginem vix fimbriatam glaberrima. Folia linearis vel lineari-lanceolata, ad apicem rami circiter 7, persistentia, supra viridia, infra glaucina, glaberrima, 12-25 cm longa, 2-5 cm lata, apice subito acuminata, basi rotundata usque obtusissima; petiolis 3-5 mm

longis ab initio glaberrimis late alatis; vaginis glaberrimis vel margine tantum puberulis; ligula 1–2 mm alta minute pilosa; auricula saepe valde conspicua; setae orales bene evolutae scaberulae.

Nom. Jap. *Otagizasa*

Hab. Japonia: prov. Yamasiro, Kyoto, mt. Atagoyama (lg. G. KOIDZUMI)

Ranges. prov. Ohmi: Toriimotomura, prov. Yamasiro: mt. Hiyeizan, Kurama, prov. Tamba: mt. Mitakesan, prov. Tango: Sugiyama, Kusaotoge, Tawaratoge, prov. Tajima: Myokensan.

Sasa (Eusasa) Doiyoshiwoana KOIDZ. n. sp.

Species nova *Sasam Veitchii* REHDER comparanda, planta plus ramosa, merithallio breviora, ramis brevibus; foliis oblongis brevioribus nec oblongo-lanceolatis, margine in auctumno late luteo-marginatis valde pulcherrimis.

Culmus 1 metralis ramosus glaber, nodo glabro, internodiis 3–8 cm longis, vagina quam internodium breviora albido-cinerea extus dense hirsuta scariosa. Folia chartacea vel coriacea supra laete viridia, infra vix glauca, oblonga vel linearioblonga, ad apicem rami 2–5 persistentia, apice subito acutata, basi rotundata, 9–16 cm longa, 2,5–5 cm lata, glabra; petiolis 3–4 mm longis glabris alatis; vagina margine fimbriata saepe purpurascens; ligula puberula; setae orales deciduae. Folia in auctumno margine late parallele luteo et albo-latopicta.

Nom. Jap. *Kobano-utsukusizasa*

Hab. Japonia: prov. Stasuma, Katsumemura (lg. YOSHIWO DOI ! 4 Nov. 1934.)

Ranges: prov. Ise, Asamayama (lg. C. HASHIMOTO ! 18, Nov. 1934.)

Arundinaria phalerata KOIDZ. n. sp.

Sasaella phalerata KOIDZ. Mss.

Species nova *Sasae senanensi* REHDER remote affinis differt foliis elongato-lanceolatis elongatissimis laete virentibus, vagina folii pubescentia, auricula valde amplexuosa.

Planta elata culmo erecto. Folia ad apicem ramii 5, persistentia, glabra, supra laete viridia, infra vix glaucina, elongatissima, longissime lanceolata, 20–32 cm longa, 3,5–5,2 cm lata, apice sensim acuminata vel caudata, basi rotundata, margine remote setulosa; petiolis glabris 5 mm longis 4 mm latis, late alatis; ligula ampla puberulenti-tomentella; auricula 3,5 mm longa puberulenti-tomentella; setae orales elongatae bene evolutae infra medium pilosulae; vagina folii glabra vel pilosa.

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Nom. Jap. *Sekinoyadake*Hab. Japonia : prov. Hohki, Miogaseki (lg. G. KOIDZUMI ! 4,
Jun. 1924.)**Sasa kurilensis** MAKINO et SHIBATA.var. **lasiochlamys** KOIDZ. n. var.

Culmi merithallium dense retrorso-pilosum, vagina culmorum versus basin pilosula.

Nom. Jap. *Oni-nemagaridake*

Hab. Yesso : ad Jirafu et Odaru (lg. U. FAURIE !)

Sasa (Brachycladae) **Hashimotoi** KOIDZ. n. sp.

Planta 30 cm alta, culmo gracile glabro 2 mm lato ad nodum leviter inflato, vix flexuoso, nodo glabro; vagina internodii dimidio longitudine pubescente.

Folia versus apicem culmi 2-3, persistentia, membranacea, supra opaca, infra vix glaucina et pubescentia, lanceolato-oblonga. 11-16 cm longa, 2,5-3,3 cm lata, apice acuminata, basi rotundata, margine dense ciliolata, in auctumno albo-marginata; petiolis 3 mm longis alatis utrinque pilosulis; vagina margine tantum fimbriata, ligula brevissima puberula, setae orales deciduae scaberulae. Panicula e basi culmi evoluta, gracile elongata, rachidibus glabris, vaginis albidis appendiculatis inter venulis minute antrorsum pilosulis; inflorescentia laxiflora 5-9 cm longa, 2-6 cm lata, pedunculis pedicellisque adpresse pubescentibus, flosculis oblique ovatis acutis puberulis, radiis 3-10 mm longis.

Nom. Jap. *Ohmi-kozasa*

Hab. Japonia : prov. Ohmi, mt. Mikamiyama (C. HASHIMOTO ! 2, Jul. 1930).

Sasa geniculata KOIDZ. n. sp.Forsan una species nova sectionis *Crassinodi* vel *Brachycladae*.

Planta humilis, culmo vix flexuoso, glabro, 1-1,5 mm lato, gracillimo, nodo glabro vix inflato, vagina culmorum cinerea quam merithallium breviora appendiculata extus pilosa, setae orales plerumque evolutae. Folia versus apicem culmi 4, persistentia, lanceolata, apice sensim acuminata, basi subrotundata, 15-18 cm longa, 2,2-3 cm lata, sed infima ovata vel oblongo-ovata subito acuminata 5-9 cm longa; omnia membranacea supra glabra opaca viridia, subtus obscuriter glaucina, pubescentia, ligula, minute puberula apice truncata, setae orales bene evolutae radiatae albidae scaberulae.

Nom. Jap. *Nasuno-miyakozasa*

Hab. Japonia : prov. Shimotsuke, Nasumura (lg. T. SUZUKI !
28, Jun. 1931)

Sasa (Crassinodi) dilacerata KOIDZ. n. sp.

Species nova e *Sasa kusirensis* NAKAI differt setis oralibus deficientibus foliis non albo-marginatisque.

Planta 40–50 cm alta, e basi paucissime ramosa, ramis erectis, nodo inflato glabro, internodiis infra nodum glauco-farinosus, facie dense minutissime retrorsumque pilosis, 2,5–3 mm latis; vaginis albidis scariosis praecipue versus basin minute pilosis. Folia versus apicem ramii 3–6, persistentia, ovato-oblonga subito acuminata basi rotundata, 7–16 cm longa, 2,2–3,8 cm lata, chartacea, supra viridia laevia glabra, infra vix glaucina molliter pubescentia, margine dense apresseque setulosa, vagina lutescentia margine fimbriata basin versus minute pilosula, ligula depresso-semiorbicularia minute puberula, setis oralibus deficientibus.

Nom. Jap. *Ainuzasa*

Hab. Japonia : Kurile, insula Shikotan.

Sasa (Crassinodi) amphitricha KOIDZ. n. sp.

Species nova ad praecedentem affinis sed setis oralibus foliorum inferiorum bene evolutis, lamina supra laxissime hirtellaque differt.

Culmus facie minute dense et retrorsum pilosulus, sub nodo pruinosis; nodo leviter inflato minute denseque canescenti-piloso; vagina cinerea quam internodia breviora minute retrorso-puberula, vagina superiora culmorum appendiculata, setis oralibus evolutis. Folia ad apicem ramii 4–5, persistentia, lineari-oblonga 10–20 cm longa, 2,9–4,5 cm lata, apice subito caudata, basi rotundata; sed folium infimum ovatum sensim acuminatum basi cordato-rotundatum, 4–8 cm longum; omnia tenue membranacea, supra laevissime hirtella, infra molliter pubescentia, margine ciliata, vagina minute denseque retrorso-pilosula; ligula depresso-subrotundata minute puberula; setae orales folii infimi bene evolutae.

Nom. Jap. *Ainu-miyakozasa*

Hab. Yesso : prov. Kusiro, Hiocha (lg. J. SUGIMOTO ! 19, Jul. 1933. no. 26027).

Sasa (Eusasa) grandifolia KOIDZ. n. sp.

Haec specie affinis *Sasae megalophyllae* MAKINO, a qua foliis glaberrimis distinguitur.

Elata ramosa, ramis 5–6 mm latis robustis glabris, infra nodum pruinosis, nodo vix inflato, internodio 12–15 cm longo; vaginis inferioribus quam merithallium brevioribus nudis, sed vagina suprema longiora appen-

culata, omnia sordide cinerea extus hirsuta. Folia versus apicem ramii 5-7 sempervirentia, oblongo-linearia 20-33 cm longa, 5-7,5 cm lata, apice subito caudata, basi rotundata vel late cuneata, glabra, chartacea vel membranacea, infra glaucina, margine dense setulosa, costis utrinsecus 9-11; petiolis 10-13 mm longis late alatis glabris; vagina rigidiuscula facie margineque hirsuta sed mox glabrescentia; ligula ampla vertice truncata pilosula; setae orales deciduae.

Nom. Jap. *Oh-sasa*

Hab. Japonia: prov. Ohmi, mt. Shizugatake (lg. C. HASHIMOTO ! 29, Aug. 1932. no. 762.)

Ranges: prov. Uzenn, Oguni (lg. Y. YUHKI et U. KATO !)

Sasa (Eusasa) horribilis KOIDZ. n. sp.

Species nova affinitate *Sasae atagoensis* KOIDZ. et *Sasae kinkiensis* KOIDZ. nodo non inflato, folii vagina longe hirsuta, lamina crassiora magine non albescentia differt.

Elata supra ramosa, ramis 4-5 mm latis glabris, infra nodum glaucofarinosus, vagina cinerea praecipue versus basin densius villosa-hirsuta, nodo leviter inflato. Folia ad apicem ramii 6-7, sempervirentia, linearia, 20-28 cm longa, 4-6 cm lata, subito acuminata, basi late cuneata, margine dense setulosa, coriacea, glabra, utrinque viridia, costis utrinsecus 9-12, petiolis 10-13 mm longis late alatis glabris; vagina hirsuta margine fimbriata sed suprema glabra; ligula truncata extus puberula, setae orales male evolutae.

Nom. Jap. *Hokuyetsuzasa*

Hab. Japonia: prov. Yetsizen, Tsulugagunn, Nakaaihatsumura, Okuaso (lg. Z. TASHIRO ! 22, Jun. 1934.)

Ranges: prov. Yetsigo, mt. Yahikoyama, prov. Noto; prov. Iwami.

Arundinaria sadoensis MAKINO. nom. nov.

Pleioblastus sadoensis MAKINO, ex KOIDZ. in Acta Phytotax. Geob. III. p. 152.

Sasaella sadoensis MAKINO.

Nom. Jap. *Sadonezasa*

Hab. insula Sado.

Arundinaria siroyamensis MAKINO. nom. nov.

Sasa siroyamensis MAKINO, ex KOIDZ. in Acta Phytotax. Geob. III. p. 152.

Sasaella siroyamensis MAKINO.

Nom. Iap. *Siroyamazasa*

Hab. prov. Shimotsuke.

Arundinaria Koidzumii MAKINO. nom. nov.

Sasella Koidzumii MAKINO ex KOIDZ. in Acta Phytotax. Geob. III. p. 16.

Nom. Jap. *Yetizennzasa*,

Hab. prov. Yetsigo, Ugo, Uzenn et Yettsiu.

Arundinaria Minaguchii MAKINO. nom. nov.

Sasaella Minaguchii MAKINO. ex KOIDZ. in Acta Phytotax. Geob. III.
p. 16.

Nom. Jap. *Ugozasa*

Hab. prov. Ugo.

Arundinaria tangoensis KOIDZ. nov. nom.

Sasa tangoensis KOIDZ. in Acta. Phytotax. Geob. III. p. 21.

Nom. Jap. *Tangosasa*

Hab. prov. Tango.

Arundinaria Hashimotoi (MAKINO) KOIDZ. nom. nov.

Pleioblastus Hashimotoi MAKINO, Jour. Jap. Bot. VIII (1933) p. 45.

Culmus 2,5 metralis glaber ad nodum longe hirsutus, vagina glabra basi pilis elongatis horizontaliter patentibus tomentosa. Folia ampla ad 28 cm longa et 5,5 cm lata, oblonga vel lanceolato-oblonga apice subito acuminata, basi subcordata vel truncato-rotundata, glabra vel supra tantum prope basin parce pilosa, infra intense glauca, margine prope basin longe ciliata, vagina glabra, ligula brevissima depresso-truncata; setae orales patulae infra medium scaberulae caducae.

Nom. Jap. *Ohbano-urajiro-shino. Ohsakazasa.*

Hab. Japonia: prov. Ohmi, Yetizenn, Hida.

Arundinaria Hosidaikitiana KOIDZ. nov. sp.

Culmus mediocris, internodiis dense minutissime retrorso-pilosis, nodo dense minute piloso; vagina densissime minute retrorso-pilosa. Folia oblongo-lanceolata 21 cm longa, 15-30 mm lata, acuminata basi rotundata vel obtusa, supra setulis antrorsum curvis scabra vel fere glabra tactu tantum scabrida, infra pubescentia, vagina minute velutina superiora purpurascencia.

Nom. Jap. *Daikiti-shino.*

Hab. Japonia: prov. Iwaki, oppidum Miharu, ad Anajizomichi (lg. Y. HATTORI ! 17, Dec. 1934. no. 75.)

Ranges: prov. Iwashiro, Adachigunn, Sugitamura (lg. D. HOSHI !

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29, Oct. 1934.) prov. Shimotsuke, Kogashiyama (lg. H. SEKIMOTO ! 6, Jan. 1935. no. 1.)

Species dicata in onorem DAIKICHI HOSHI.

Arundinaria kinkiensis KOIDZ. nov. sp.

Culmus facie minute velutinus, nodo inflato dense puberulo, vagina minute velutina. Folia anguste lanceolata 22–28 cm longa, 20–35 mm lata, sensim acuminata, basi obtusa vel subrotundata, glabra; vagina minute velutina.

Nom. Jap. *Kinki-shino*

Hab. Japonia : prov. Yamashiro, Kyoto, Kurama (lg. G. KOIDZUMI ! 1, Jan. 1935.)

Arundinaria Kishinoana KOIDZ. nov. sp.

Culmus mediocris ramosus glaber, nodo minute molliter densissimeque puberulo, vagina versus basin minute molliter densissimeque puberula. Folia oblonga 13–22 cm longa, 30–38 mm lata, subito acuminata, basi subcordata vel rotundata, supra glabra, infra molliter pubescentia, vagina glabra.

Nom. Jap. *Iwami-shino*.

Hab. Japonia : prov. Iwami, Mimagunn, Idamura, Washigamine (lg. Y. KISHINO ! 20, Juni 1933.)

Species dicata in onorem YORISABURO KISHINO.

Arundinaria Tejiroana KOIDZ. nov. sp.

Culmus mediocris ramosus, internodio pilis minutis retorsis puberulo, nodo minute velutino. Folia lanceolata 11–18 cm longa, 11–25 mm lata, subito acuminata supra glabra, infra pilosa, basi rotundata, margine versus basin longe ciliolata, vagina minute velutina.

Nom. Jap. *Iwaki-shino*.

Hab. Japonia : prov. Iwaki, Higashi-shirakawagunn, Chikatsumura, Yamamoto (lg. TEIJIRO SUZUKI ! 18, Sept. 1932. no. 246.)

Species dicata in onorem TEIJIRO SUZUKI.

Semiarundinaria elegantissima KOIDZ. nov. sp.

Bambusaceae mediocres sempervirentia. Culmus erectus teres fistulosus, laevis glaber atropurpurascens, ad nodum prominens, infra nodum glaucopruinosus; ramis erectopatentibus laevibus glabris atropurpureis. Vagina culmorum cinerea glabra decidua. Folia versus apicem ramii 3–7 palmatim disposita, brevipetiolata, ovato-oblonga, apice acutata basi rotundata, 7–16 cm longa, 2–3,8 cm lata, margine minute spinulosa, supra viridia scaberula,

subtus glaucina leviter pubescentia vel secus costas parce pilosa, membranacea vel tenue chartacea; petiolis glabris vel supra pilosis; ligula depresso-truncata brevissime minute velutina vel glabrescentia; vagina cinerea margine dense fimbriata, facie minute velutina, superiora purpurea pubescentiaque; setae orales radiatae laeves vel scaberulae.

Nom. Jap. *Murasaki-yashadake*.

Hab. Japonia: prov. Iwaki, Miharumachi (lg. Y. HATTORI ! 16. Dec. 1934.)

Pleioblastus Hattorianus KOIDZ. nov. sp.

Culmus atratus infra nodum minutissime retrorso-pilosulus mox glabrescens, ramis tenuibus gracilibus; nodo minutissime pilosulo; vagina basi tantum minutissime pilosula. Folia linearia angustissima 10-20 cm longa, 7-11 mm lata, apice sensim arguta, basi acutata, utrinque secus costas medias apresse pilosa, cetera glabra; petiolis utrinque dense pilosis purpurascens; ligula brevissime depresso-truncata; vagina cinerea vel superiora purpurascens; setae orales male evolutae.

Nom. Jap. *Hosoba-azumanezasa*.

Hab. Japonia: prov. Iwaki, oppidum Miharu (lg. Y. HATTORI ! 1934.)

Species dicata iu onorem YASUYOSHI HATTORI.

Sasa (Crassinodi) plexipes KOIDZ. nov. sp.

Humilis culmo glabro, nodo piloso, vagina glabra. Folia late lanceolata 10-18 cm longa, 22-32 mm lata, sensim acuminata, glabra, basi rotundata, subtus glaucina; vagina glabra, ligula breve depresso-semirotundata; setae orales radiatae patulae scaberulae.

Nom. Jap. *Oh-itozasa*

Hab. Japonia: prov. Suruga, Kamiidemura, Tanukimura (lg. J. SUGIMOTO ! 2 Aug. 1933. no. 23790.)

Sasa (Crassinodi) pubescens KOIDZ. nov. sp.

Humilis culmo glabro globoso; vagina minutissime retrorso-pilosula. Folia anguste lanceolata elongata, 10-22 cm longa, 12-30 mm lata, sensim acuminata, basi rotundata vel obtusissima, supra ad costas medias saepe minute laxissimè pilosula, infra molliter pubescentia; vagina glabra; ligula dorso velutina apice repanda; setae orales indistinctae.

Nom. Jap. *Hosoba-miyakozasa*.

Hab. Japonia: prov. Hida, oppidum Takayama (lg. J. SUGIMOTO ! 1933.)

Podostemaceae Japonicae

Conspectus Generum

1 *Lawiella* Koidz.

Rhizoma perennans hepaticiforme longe repens pinnatim ramosum; brachycladus florens erectus foliis bracteiformibus secundariis palmatilobis distiche imbricatim alternis pluribus vel numerosis praeditus; spathella ovoidea erecta demum vertice irregulariter fissa; floribus erectis, stamen unicum; capsula laevia anisoloba valvis majoribus tantum persistentibus.

2. *Hydroanzia* gen. nov.

Rhizoma perennans crustaceum licheniforme lobis rotundatis; brachycladus florens brevis prostratus, bracteis paucis squamosis distiche imbricatis; spathella ellipsoidea ex uno tandem superne longitrorsum fissa indeque leviter subbivalvis; floribus ascendentibus, stamina 2 filamentis plus minus connatis; capsula 12-costata isoloba, valvis 2 persistentibus.

1 *Lawiella* Koidz.

Lawiella Koidz. emend. et auct. in Doi Fl. Satsumensis vol. II. (1931) p. 94.

Lawiella Koidz. in Doi Fl. Satsumensis vol. I. no. 2 (1927) p. 21.

Hemidistichophyllum Koidz. in Doi Fl. Satsum. vol. I. no. 3 (1928) p. 24.

Flores zygomorphi hermaphroditi hypogyni monandri in alabastra intra spathellam toto inclusi. Tepala 2 subulata minuta filamento intermedio collateralis et unilateralis, simulque marcescentia vel decidua. Stamen unicum rarius bilobum filamentis in alabastra intra spathellam ovario arcte inflexo-apressis; antherae adnatae introrsae biloculares longitudinaliter dehiscentes, loculis contiguus vel toto separatis ita theca stipata; granula pollinis didyma. Ovarium ovoideum vel oblique ovoideum laeve inequaliter biloculare, placenta centrali-axiali crassiuscula, septo angusto mox evanido, ovula plurima anatropa integumento duplici; stylis 2 minutis, stigmatibus obovato-spathulatis vel subulatis in praefloratione antheram versus reflexis ovarii facie arcte apressis. Capsula globosa laevis obsolete binervis unilocularia pedicello longe excerta, septifrage dehiscens, sutura valde oblique separata anisoloba, inequaliter bivalvis, lacinia altera majore dorso prope basin pedicelli affixa persistente, altera minore per dehiscenciam decidua; semen plurimum minutum. Planta aquatica perennantia submersa perpussilla, habitu omnino muscorum et hepaticarum quorundam. Rhizoma thalliforme carnosum viride dorsiventraliter planatum, aspectu hepaticiforme, supra saxa arcte adhaerens, longe prostratum, pinnatim ramosissimum; brachycladus supra axilam rami rhizomatis semper solitariis; foliis primariis sessilibus sempervirentibus vel deciduis. Brachycladus sterilis inclusus e foliis pluribus

stellatim fasciculatis tantum constatus; foliis viridibus spathulato-filiformibus vel bifidis basi minutissime vaginiferis, lamina in anthesi mox decidua plerumque vaginis persistentibus leviter acutisque reliquens. Brachycladus ob tempore auctumnali mox emergens elongatus erectus et florens, foliis secundariis multo minoribus bracteaeformibus palmatilobis et grossius bilobis, superioribus majoribus sensim distiche alternis, inter se arcte imbricatis, sessilibus, foliorum lobis interdum valde inequilongis raro uno segmento tantum elongatissimo indeque folio simplice videtur. Flores ad apicem brachycladi fertilis solitarii brevipedicellati, ante anthesin spathella ellipsoidea carnosula apice mucronulata clausi, in anthesi spathella ex vertice irregulariter fissa indeque pedicellis exsertis.

Species 3 in fluvio insulae Kyusiu australis Japoniae incolae.

1, *Lawiella Doiana* KOIDZ. emend. et auct. in *Dor Fl. Satsum.* vol. II (1931) p. 96.

Lawiella Doiana KOIDZ. in *Dor Fl. Satsum.* vol. I. no. 2 (1927) p. 22.

Hemidistichophyllum Doianum KOIDZ. in *Dor Fl. Satsum.* vol. I. no. 3 (1928) p. 25.

Cladopus Dorana KORIBA in MAKINO *Jour. Jap. Bot.* vol. V (1928) p. 85, et *Toyo Gakugei-zassi* vol. 44 (1928) p. 249.

Rhizoma tenuior laxius ramosum; foliis sempervirentibus, foliis secundariis palmatim 4-6-8-lobatis; brachyclado fertile multo longiore cum foliis palmatis numerosioribus; stamen unicum plerumque bilobum; stigma subulato-filiforme.

Herbae perennantes aquaticae submersae pusillae. Rhizoma thalliforme explanatum aspectu hepaticarum carnosum super saxa longe repens et eam arcte adnatum, viride, ramosum, ramis pinnatim alternis vel suboppositis 1-2 mm latis, 1/2 mm crassis. Brachycladus sterilis erectus minimus apice foliis lineari-setaceis vel subulato-linearibus sessilibus carnosulis glabris laevissimis acutis vel obtusis, 3-7 mm longis, 1/3 mm latis, simplicibus rarius bifidis stellatim fasciculatis praeditus, sed primum brachycladis nullis toto inclusis tantum e foliis paucis instructis, brachycladis fertilibus mox elongatis ad 10 mm longis. Folia ramorum fertilium multo breviora distiche alterna inter se arcte imbricata, late rhombeo-obovata palmatim 4-7-lobata, inferiora minor paucilobata sinibus medianis profundioribus laciniis fragilibus ovatis usque linearibus obtusis, raro laciniis 1 vel 2 interioribus multo longiolibus valde notatis; omnibus sessilibus. Inflorescentia uniflora ad apicem ramulorum fertilium terminalis, in praefloratione intra spathellam toto inclusa, spathella oblongo-ellipsoidea saepe rubicunda apice mucronulata in anthesi ex vertice irregulariter fissa, indeque pedicellis exsertis erectis

fere 2-1 mm longis, floribus 1-1,5 mm longis. Tepala 2 minima subulata mox marcescentia vel decidua. Stamen unicum plerumque bilobum, filamentis tenuissimis, antheris bipartitis stipitatis. Ovaria globosa vel ellipsoidea fere 1 mm longa, saepe rubicunda oblique obsoleteque binervosa inequaliter bilocularia; ovulis numerosis; stigmatibus 2 subulato-filiformibus raro emarginatis. Capsula globosa vel globoso-ellipsoidea vix 1,5 mm longa secunda, pedicello mox gracile elongato circ. 3 mm longo exserta, inequaliter septicide bivalvis, valvis majoribus inferioribus persistentibus, altera minore deciduo, unilocularis, seminibus numerosis.

Nom. Jap. *Tsukusi-podostemon*

Haq. Japonia : Kyusiu, prov. Satsuma, in fossis fluvii Man-nosegawa, ob tempore auctumnali florens. (lg. YOSHIO DOI !)

The flowers of the present species show extrem teratological variations, the normal form rather rare, one of those teratological variations is the augmentation of the pistils, from 2 pistils to many pistilodes, in such a flower, almost always destitute of even the abortive stamen, when the number of pistil few, their form is near to the normal ones, but when many, very abortive and minute except the 2 large ones; the another variation is the augmentation of the staminodes, and abortive or imperfect stamens, in these cases, almost always each flower has one ovary.

2, **Lawiella kiusiana** KOIDZ. Fl. Symb. Or. Asia. (1930) p. 96; - et in DOI Fl. Satsum. vol. II (1931) p. 97.

Hemidistichophyllum japonicum (IMAM.) KOIDZ. in DOI Fl. Satsum. vol. I. no. 2 (1928) p. 24.

Cladopus japonicus IMAM. in MAKINO Jour. Jap. Bot. V (1928) p. 60; - et in Tok. Bot. Mag. 42 (1928) p. 379, t. 56.

Rhizoma plus carnosum densius ramosum; foliis plerumque deciduis, foliis secundariis palmatis 10-12-lobatis; brachyclado fertile brevissimo; stamen unicum; stigma obovato-spathulatum.

Rhizome green hardish thallus-like dorsiventrally flattend, long creeping, monopodially branching and forming a loose net, closely adhering to the surface of the rocks, with the haptera-like roots-hairs producing from the underneath of the rhizome. The vegetative dwarf branchlets are totally included, and only represented by the fascicular tufts of linear or setaceous primary leaves. In the flowering period, this dwarf shoots elongate and becomes covered with the secondary leaves, these leaves digitately lobed, its median sinus always deeper, very short, closely and distichously imbricated, the lobes 10-12, setaceous linear, only one of them far longer than the others in the lower leaves, and appears like a simple linear leaf. Flower rising from the opening by irregular lobe at the apex

of a roundish spathe which is mucronate at the tip when closed, solitary at the apex of minute pedicel; the perianth segments 2 linear-lanceolate minute; the stamen one; ovary globular ovoid sessil or minutely stipitate, inequally two celled, style 2 obovate subulate minute; capsule one-celled globular smooth, obscurely and obliquely bivalved, the valves unequal, the larger one inferior persistent, the upper smaller one deciduous.

Nom. Jap. *Karwagoke-podostemon*

Hab. Japonia : Kyusiu, prov. Satsuma, growing on the rocks in the river Sendaigawa; prov. Ohsumi: in the river Anrakugawa (lg. YOSHIO DOI !)

This plants growing in the river Anrakugawa shows a teratological variation of the flower, all or one of the tepals adnate to the ovary surface, changing into the form of the staminode, the abortive anther unite with the deformed stigma; the ovary has rarely 3 carpels.

3, ***Lawiella austrosatsumensis*** KOIDZ. in DOI Fl. Satsum. vol. II (1931) p. 101.

This species is very near to *Lawiella kiusiana* KOIDZ. in its stigma form and other characters; but differ in the following points.

Rhizoma creberrime pinnatifidum, ramis crassioribus brevioribus obtusis inter se arcte contiguis; foliis non deciduis.

Nom. Jap. *Tokiwa-podostemon*.

Hab. Japonia : Kyusiu, prov. Satsuma. ad fluviam Mawatari-gawa (lg. YOSHIO DOI !)

2. ***Hydroanzia*** KOIDZ. nov. gen.

Euhydrobryum (non WEDDEL) KOIDZ. in DOI Fl. Satsum. vol. II (1931) p. 98.

Our *Hydrobryum*-like plants differ from the genus *Euhydrobryum* in the perennial habit. We never find the primary axis and primary rhizome in the field, they regenerate from the root stock every year.

Flores hermaphroditi zygomorphi diandri hypogyni in alabastra intra spathellam toto inclusi. Tepala 2 subulata versus basin ad latera columnae staminum adnatae. Stamina 2 collateralia hypogyna filamentis in columnam monadelpham alte coalitis, superne liberis; antherae introrsae biloculares, loculis contiguis vel connectivo interposito sejunctis, longitudinaliter dehiscentes; pollinia didyma. Ovarium ovoideum compressiusculum sessile vel gynophoro brevissimo praeditum, biloculare, dessepimento placentifero; placenta carnosa e loculorum angulo centrali late tumens; septum angustissimum fragile scissileque; ovula plurima anatropa sessilia et peritropa; stigmata 2 sessilia saepius inequalia subplana ovata subulata vel cuneiformia,

integra vel dentata usque varie lobata, Capsula ovoidea septicide dehiscens unilocularia pedicello brevi exserta, valvis 2 equalibus 6-costatis vel inequalibus 4-costatis, semina plura. Planta perennantia aquatica aspectu omnino hepatico vel licheniformi, rhizomate thalliformi viridi membranaceo-carnoso, foliaceo et lobato, saxis rupibusque submersis rivulorum arcte adhaerente; brachycladus sterilis minimus vel nullus super frondem dispersus, e foliis filiformibus viridibus paucis fasciculatis tantum instructus. Brachycladus florifer parvus super frondem prostratus numerosus, folii laminis omnino deciduis basibus tantum reliquentibus et mox auctis carnosulis squamiformibus paucis distiche imbricatis, squamis superioribus majoribus spathellam amplectentibus, inferioribus conformibus aut nonnunquam in limbum filiformem illo foliorum fasciculorum sterilium similem desinentibus. Flores ad apicem brachycladi fertili solitarii sessili vel brevipedicellati, ante anthesin spathella membranacea ellipsoidea utriculiformi clausus, in anthesin ex uno tandem superne longitrorsum fissa, indeque cymbiformis floribus leviter subexsertis.

Species 3 in fluvio insulae Yakusima et Kyusiu australis Japoniae incolae.

4, **Hydroanzia floribunda** KOIDZ. nom. nov.

Hydrobryum floribundum KOIDZ. in MAKINO Jour. Jap. Bot. VI (1929, Jul. 18) no. 1, p. 1, cum 2 fig.

Hydrobryum Griffithii var. *floribundum* KOIDZ. in DOI Fl. Satsum. vol. I. no. 4, (1929) p. 49, fig. 1.

Euhydrobryum floribundum KOIDZ. in DOI Fl. Satsum. vol. II (1931) p. 100.

Euhydrobryum Griffithii var. *floribundum* KOIDZ. in DOI Fl. Satsum. vol. II. (1931) p. 100.

Rhizoma tenue copiosissime floribundum, foliis tenuioribus brevioribus angustioribusque; brachycladus florifer duplo—quadriplo minor, floribus duplo—quadriplo minoribus, spathella tenuis duplo—quadriplo minor; tepalis tenuissimis, stigma subulato-ovata, filamentis infra medium vel tantum basi coalitis; capsula brevius pedicellata.

Aquatic perennial herbs with the habit of crustaceous foliose-lichens, submerged throughout the year, closely attached to the surface of the rocks or stones of rivers and torrents. The primary axis none. Rhizome foliaceous, roughly circular in outline, 10–20 cm in diameter, irregularly and more or less deeply lobed, growing by continuous marginal increase, thin, green, closely attached to the substratum with entire ventral faces. Secondary axis or brachyclade numerous, scattered irregularly and densely on the upper surface of the rhizome, in the vegetative period entirely

included, consisting only of a few fasciculate linear leaves, but in the flowering period emerging and forming a distinct brachyclade closely covered with mostly 4-(6) alternate distichous and thick cymbiform or helmetshaped bracts, prostrate on the rhizome surfaces, one flowerd ; spathe boat-shaped oval when closed, dehiscent or splitting by median line on the upper side. Leaves in vegetative condition simple subulate-linear, to 6,7 mm long ; in floral buds some of them ultimately forming scally thick bracts by the enlargement of sheathing basis and the fall of the lamina. Flowers borne very abundantly over the rhizome surfaces, nearly prostrate, small, almost sessile, enclosed before anthesis in a closed spathe. Tepals 2 filiform adhering to the each side of filament bases. Stamens 2 filaments united half below or at the base only, slightly exceeding the gynoeceum. Ovary ellipsoid symmetrical, minutely stipitate , stigma 2 short, thickly subulate. Pedicel of fruit minute ascending. Capsule ellipsoide dark reddish brown, closely 12-ribbed, isolobous, both valves persisting, usually nearly prostrate.

Nom. Jap. *Usu-kawagolomo*

Hab. Japonia : Kyusiu, prov. Ohsumi, growing on rocks in rapid water of the river Maegawa and in the river Anrakugawa (lg. YOSHIO DOI !)

5, **Hydroanzia japonica** (IMAMURA) KOIDZ. nom. nov.

Hydrobryum japonicum IMAMURA in Tok. Bot. Mag. 42 (1928) p. 376, (nom. seminud.)

Hydrobryum Griffithii var. *japonicum* KOIDZ. in DOI Fl. Satsum. vol. I. no. 4 (1929) p. 49. 51.

Euhydrobryum japonicum KOIDZ. in DOI Fl. Satsum. vol. II (1931) p. 101.

Euhydrobryum Griffithii var. *japonicum* KOIDZ. in DOI Fl. Satsum. II. p. 101.

Rhizoma carnosum duriusculum, foliis majoribus, brachycladis floriferis duplo majoribus; stigma longe subulata usque longe ovata, filamentis altius connatis, floribus duplo majoribus, spathella carnosula duplo major; tepalis saepe insignibus, capsula longius pedicellata.

In this species, mostly a special circular ring-like thickning is formed around the very young flowering brachyclade.

Nom. Jap. *Kawagolomo*

Hab. Japonia : Kyusiu, prov. Ohsumi, in saxis rupibusque inundatis rivuli Kaminokawa, et secus torrentem Ogawa et Takasugawa, (lg. YOSHIO DOI !)

6, **Hydroanzia puncticulata** KOIDZ. nom. nov.

Hydrobryum puncticulatum Koidz. in Acta Phytotax. Geobot. III (1934)
p. 178.

Euhydrobryum puncticulatum Koidz. in Acta Phytotax. Geobot. III. 178.

Rhizoma carnosum viride duriusculum; foliis tenuioribus brevioribus angustioribus; brachycladus florifer quadriplo minor quam in praecedente, floribus triplo vel quadriplo minoribus, spathella tenuis triplo vel quadriplo minor; tepalis tenuissimis, stigma longe subulata, filamentis 2 nunc toto connatis nunc alte connatis vel infra medium connatis interdum basi tantum coalitis; capsula duplo minor brevius pedicellata; bractea apice minutissime mucronulata; planta laxissime florifera.

The green rhizomes are flat frond-like expansions at the circumference, 5-10 cm in diameter, with many lobes which slightly imbricated at the lateral side, flabellately and horizontally spreading with continuous marginal growth, dorsiventral in structure; they adhere firmly to the substratum, and regenerate one above the other.

Nom. Jap. *Yakusima-kawa golomo*.

Hab. Japonia: Kyusiu australis, insula Yakusima. in the river Issogawa (lg. YOSHIO DOI! Aug. 1933, 27, Dec. 1934.)

(to be continued)