

2. Pileus green; stipe white to yellowish ..... f. *viscosa*.
3. Pileus olivaceous or green; stipe yellow-orange to orange ..... f. *aurantipes*.
4. Pileus dull orange-yellow; stipe greenish ..... f. *anthocephala*.
5. Plants entirely greenish or olivaceous ..... f. *Stevensonii*.
6. Plants greenish or green, ramoso-lobate ..... f. *portentosa*.
7. Plants entirely green ..... f. *chlorosoma*.
- II. Plants small, less than about 1.5 cm. in length.
8. Plants entirely yellowish-ochraceous or ochraceous ..... f. *minima*.
9. Plants entirely greenish or green ..... f. *atrovirens*.

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## Studia Orchidacearum Japonicarum. VIII.

Orchidaceae Formosae et Insulae Kōtō-syo Novae Atque Criticae.  
auctore

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### 66) **Gastrochilus quercetorum** FUKUYAMA, sp. nov.

Epiphyticus, longe adpresso prostratus, radicibus e caule emittentibus filiformibus flexuosis teretibus ¼-1 mm diametentibus glabris, caulis 10-25 cm. longis 1.5-2 mm. diametentibus laxiuscule foliatis cum vaginis foliorum toto facie obtectis glabris.

Folia patentia, alterna, disticha, elliptica, interdum longe elliptica, apice oblique breveque acuta, basi contracta, in petiolos per breve abeuntia, 1-2 cm. longa, medio 6-8 mm. lata, crassa, supra medio leviter unisulcata, subtus convexa, utrinque sparse purpureo-punctata vel purpureo-maculata, glabrata.

Racemus lateralis, 1-2-floratus, breviter pedunculatus, pedunculis rectiseulis c. 5 mm. longis glabris pauci-vaginulatis, vaginulis inferioribus tubiformibus ore truncatis sursum sensim in bracteas decrescentibus, bracteis minutis triangulatis acutis glabratis.

Flores apertentes, flavescentes, rubro-fusco-maculati, inter apices sepalorum intermediorum et fundos saccorum c. 1.3-1.5 cm. diametentes, pedicellis rectis bracteas multo superantibus c. 1 cm. longis glabris. Sepala crassa, patentia, glabra, sepalo intermedio elliptico-ovato apie rotundato basin versus plus minusve attenuato c. 5 mm. longo supra medium 3.5 mm.

lato, sepalis lateralibus oblongis paullo obliquis apice obtusis ad basin paullo contractis c. 6 mm. longis medio 3 mm. latis. Petala obovata, paullo obliqua, apice rotundata, basi contracta, c. 6 mm. longa, medio  $3\frac{1}{3}$  mm. lata, crassa, glabra.

Labellum ad basin columnae sessile, hypochilio saccatum, sacco oblongo-hemisphaericō paullo complanato apice rotundato c. 6 mm. alto flavescente intus et extus glabro, epichilio semiorbiculato vel triangulato-semiorbiculato apice rotundato-obtuso basi truncato margine integro c. 4 mm. longo basi 7 mm. lato supra ad medium callo instructo ad callum puberulo subtus glabro. Columna brevis, crassa.

Nom. Jap. Kirigakure-kintyaku-ran (nov.).

Hab. Formosa: praef. Takao, Naihonroku-goe, in *Quercetis* prope Hudi-edā, c. 1500 m. alt. (N. FUKUYAMA! Oct. 24, 1934. no. 4720. Typus in Herb. Oreh. Fuk.).

67) **Habenaria linearipetala** HAYATA, Icon. Pl. Form. IV. (1914) p. 126, Pl. XXIII; Schlechter, Orch. Sino-Jap. Prodr. (1919) p. 131.

Nom. Jap. Nagaba-sagisō.

Hab. Formosa; insl. Kōtō-syo, in pluvisilvis prope Imaururu. c. 200 m. alt. (N. FUKUYAMA! Nov. 20, 1934. no. 4833, 4834).

Distrib. Formosa, Insl. Kōtō-syo.

68) **Disperis orientalis** FUKUYAMA, sp. nov.

Terrestris, erecta, pusilla, c. 8 cm. alta, tuberibus parvulis ovoideis vel oblongoideis pilosis. Caulis strictus, simplex, carnosulus, teres, superiore paullo angulatus, basi vagina 1 breve acuta arete amplectente praeditus, medio remote bifoliatus, foliis sursum sensim in bracteas decrescentibus.

Folia erecto-patentia, orbiculato-ovata vel ovata, apice acuta, basi cordato-amplexicaulia, 10–12 mm. longa, infra medium 8–10 mm. lata, membranacea, utrinque glabra, venoso-nervosa.

Racemus erectus, laxe circ. 3-floratus, bracteis foliaceis ovatis acutis sursum sensim minoribus. Flores lilacini, apertientes, pedicellis cum ovariis rectis glabris leviter angulatis bracteas longitudine duplo superantibus c. 10–14 mm. longis. Sepalum intermedium cum petalis in galeam connivens, lanceolatum, apice acutum, c. 6 mm. longum, membranaceum, glabrum, trinervatum; sepala lateralia obliqua, falcato-ovata, apice acuta, basi paullo attenuata, infra medium in saecum brevem obtusum produeta, c. 6 mm. longa, membranacea, glabra, trinervata. Petala oblongo-lanceolata, obliqua, concava, apice acutiuscula, basi contracta, margine exteriore undulata, cum sepalo intermedio subaequiloniga, membranacea, glabra, trinervata.

Labellum dimidium petalorum paullo superans, cum columna adnatum, apice tripartitum, partibus lateralibus patentibus vix  $2\frac{1}{2}$  mm. longis lime-

aribus vel anguste oblongis paullo falcatis apice acutis margine anteriore irregulariter papillosis, parte intermedia infracta linearis apice acuta et papillosa quam partibus lateralibus paullo longiore angustioreque. Columna labello brevior, glabra, biappendiculata.

Nom. Jap. *Zyōrō-ran* (nov.).

Hab. Formosa; insl. Kōtō-syo, in pluviišilvis monte Sadaki-rei, c. 250 m. alt. (N. FUKUYAMA) Jul. 25, 1935. no. 4839. Typus in Herb. Orch. Fuk.).

The genus is new to the flora of Japan.

69) ***Goodyera yamiana* FUKUYAMA, sp. nov.**

Terrestris, erecta, c. 20–30 cm. alta, rhizomate decumbente cauliniformi tereti viridi carnoso ad nodos radicante, radicibus brevibus vermiformibus dense breveque pilosis. Caulis simplex, erectus, teres, glaber, viridis, vivo medio 4–5 mm. diametens, dimidio inferiore laxe fere 3–5-foliatus, supra folia inflorescentiam versus puberulus et pauci-squamatus, squamis lanceolatis acuminatis sensim in bracteas abeuntibus.

Folia erecto-patentia, ovata vel ovato-oblonga vel elliptico-oblonga, apice acuta, basi rotundato-contracta, subito ad petiolum abeuntia, lamina 3–8 cm. longa, infra medium 2–3.5 cm. lata, margine integra, supra sericea et viridia interdum obscure albescente-reticulata, subtus pallida, utrinque glabra, membranacea, multi-nervata, petiolis 2–2.5 cm. longis glabris dimidio inferiore dilatatis et amplexicaulibus.

Racemus florifer erectus, fere 4–6 cm. longus, dense multi-floratus, subsecundus, bracteis lanceolatis acuminatis margine integris vel ad basin leviter denticulatis pedicellos longitudine subexcedentibus utrinque glabris uninervatis.

Flores parvi, subapertientes, viridi-albescentes, glabri, pedicellis tortis vix curvatis apicem versus paullo attenuatis glabratis c. 5–7 mm. longis. Sepalum intermedium oblongo-ovatum, apice obtusum, basi contractum, concavum, c. 3½ mm. longum, supra basin c. 1½ mm. latum, utrinque glabrum, membranaceum, uninervatum; sepala lateralia oblique oblonga, apicem versus paullo attenuata, ad summam obtusa, c. 4 mm. longa, supra basin vix 2 mm. lata, utrinque glabra, membranacea, uninervata. Petala falcato-oblanceolata, apice obtusiuscula, ad basin angustata, c. 3½ mm. longa, membranacea, glabra, uninervata.

Labellum subrectum, c. 3½ mm. longum, apice obtusum, margine leviter crenulatum, basi saecato-ventricosum, ventriculo inter margines sepalorum lateralium paullo exerto obtuso c. 2 mm. profundo extus glabro et lutescente intus glanduloso-piloso. Columna brevis, recta, crassa, c. 2 mm. longa, rostello brevi bifido. Anthera cordata.

Nom. Jap. *Kōtō-kagonome-ran* (nov.).