

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. *Stevensoni*.
 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 adpresse prostratus, radicibus e caule emittentibus filiformibus flexuosis teretibus $\frac{1}{2}$ –1 mm diametentibus glabris, caulibus 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 brevique acuta, basi contracta, in petiolos perbreves 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 rectiusculis c. 5 mm. longis glabris pauci-vaginulatis, vaginulis inferioribus tubiformibus ore truncatis sursum sensim in bracteas decrescentibus, bracteis minutis triangulatis acutis glabratibus.

Flores apertientes, flavescens, 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-obovato apic rotundato basin versus plus minusve attenuato c. 5 mm. longo supra medium 3.5 mm.

Hab. Formosa; insl. Kôtô-syo, in pluviisilvis monte Sadaki-rei, c. 200 m. alt. (N. FUKUYAMA! Oct. 28, 1934. no. 4804. Typus in Herb. Orch. Fuk.).

70) **Dicerostylis nipponica** FUKUYAMA, sp. nov.

Terrestris, erecta, c. 20–40 cm. alta, rhizomate decumbente cauliformi tereti carnosio ad nodos radicante, radicibus vermiformibus subrectis dense breveque pilosis. Caulis vulgo simplex, erectus, teres, glaberrimus, xerampelinus, medio in exsiccato c. 5 mm. diametens, superiore subconferte 3–6-foliatus, supra folia glanduloso-pilosus et pauci-squamatus, squamis distantibus lanceolatis sursum sensim in bracteas decrescentibus.

Folia erecto-patentia, longe elliptica vel elliptica, plus minusve obliqua, apice acuminata, basi contracta, ad petiolum abeuntia, lamina 5–15 cm. longa, medio 3–5 cm. lata, margine integra, membranacea, supra subnitida et atrovirentia, subtus pallidiora, utrinque glabra, multi-nervata, petiolis c. 4 cm. longis dimidio inferiore vaginantibus glabris.

Racemus florifer erectus, 5–10 cm. longus, dense multi-floratus, glanduloso-pilosus, bracteis lanceolatis margine integris pedicellos longitudine subexcedentibus extus glanduloso-pilosis trinerviatis. Flores sublausi, globosi, albescens, glanduloso-pilosi, pedicellis rectis utrinque paullo contractis dense glanduloso-pilosis c. 1 cm. longis. Sepalum intermedium lanceolato-ovatum, ad summam obtusum, basi paullo contractum, dimidio inferiore valde concavum, c. 7–8 mm. longum, supra basin $3\frac{1}{2}$ mm. latum, extus glanduloso-pilosum, membranaceum, trinervatum; sepala lateralia oblique suborbiculata, apice perbreve caudata, caudis $1\frac{1}{2}$ mm. longis acutisculis crassiusculis extrorse recurvis, basi rotundata, c. 7 mm. longa, medio 6 mm. lata, extus sparse glanduloso-pilosa, membranacea, quadrinervata. Petala cum sepalo intermedio in galeam cohaerentia, rhomboidea, paullo obliqua, apice acuta, ad basin contracta, c. 7 mm. longa, medio 3 mm. lata, utrinque glabra, membranacea, binervata.

Labellum c. 6 mm. longum, inclusum, ventricosum-saccatum, apice rotundatum, supra medio unisulcatum, utroque latere extenuatum, margine oris appendice 1 filiformi subrecta 2–3 mm. longa instructum, intra sacci orem in tuberculum carnosum protuberans, utrinque glabrum. Columna labello brevius, antice in rostellum bifidum elongatum semirhomboideo-oblanco-latum acutum desinens, in fronte sub stigmatē bicornutum. Anthera oblongo-lanceolata, c. 5 mm. longum; pollinia 2.

Nom. Jap. Huguri-ran (nov.).

Hab. Formosa; insl. Kôtô-syo, in pluviisilvis monte Kôtô-zan, c. 400 m. alt. (N. FUKUYAMA! Jul. 17, 1934. no. 4793. Typus in Herb. Orch. Fuk.), in pluviisilvis monte Sadaki-rei, c. 200 m. alt. (N. FUKUYAMA! Jul. 3, 1934. no. 4797).

The genus is new to the flora of Japan.

71) **Pristiglottis integra** FUKUYAMA, sp. nov.

Terrestris, erecta, c. 20 cm. alta, rhizomate decumbente cauliformi tereti carnosio ad nodos radicante, radicibus brevibus vermiformibus dense breveque pilosis. Caulis simplex, erectus, teres, glaber, viridis, medio in exsiccatō c. 3 mm. diametens, supra basin ad medium sublaxe 2-6-foliatus.

Folia patentia, ovata, apice acuta, basi rotundata, subito ad petiolum abeuntia, lamina 2-5 cm. longa, supra basin 1.5-2.2 cm. lata, margine integra, supra viridia, subtus pallidiora, utrinque glabra, membranacea, multi-nervata, petiolis 1-1.5 cm. longis glabris basi dilatatis vaginiformibusque.

Scapus strictus, inferiore sparse superiore subdense pilosus, paucisquamatus, squamis distantibus ovato-lanceolatis sensim in bracteas decrescentibus, bracteis lanceolatis pedicellos longitudine subexcedentibus margine ciliatis extus pilosis membranaceis uninervatis.

Flores 5-10, in apice scapi subdense racemosi, albidī, pilosi, pedicellis rectis c. 5 mm. longis pilosis. Sepalum intermedium oblongo-ovatum, concavum, apice obtusum, basi vix contractum, 4-4.5 mm. longum, supra basin 1½-2 mm. latum, extus pilosum, membranaceum, uninervatum; sepala lateralialia falcato-oblonga, apice obtusiuscula, ad basin haud contracta, basi in saccum brevem obtusum connata, c. 6 mm. longa, medio 2 mm. lata, extus pilosa, membranacea, uninervata. Petala cum sepalo intermedio in galeam cohaerentia, dimidio inferiore oblique quadrangulato-obovata, medio subito contracta, dimidio superiore caudato-linearia, ad summam acuta, basi contracta, latere superiore truncata, c. 4 mm. longa, medio 1½-2 mm. lata, utrinque glabra, membranacea, uninervata.

Labellum quam sepala paullo longius, c. 8 mm. longum, unguiculatum, canaliculatum, margine integrum, glabrum, basi cucullato-saccatum intus callosumque, infra apicem abrupte in limbo integro subquadrangulato antice subbilobato-emarginato c. 4 mm. longo 6 mm. lato expansum. Columna brevis, rectiuscula, apice in rostellum acuminato-subbifidum attenuata, sub stigmatē bilamellatum, stigmatē indiviso. Anthera cordiformis, bilocularis.

Nom. Jap. Kamome-tasiro-ran (nov.).

Hab. Formosa; insl. Kōtō-syo, in pluviisilvis inter I'yayu et summum montem Kōtō-zan, c. 400 m. alt. (N. FUKUYAMA! Aug. 3, 1934, no. 4779. Typus in Herb. Orch. Fuk.)

72) **Zeuxine odorata** FUKUYAMA, sp. nov.

Terrestris, erecta, c. 30-50 cm. alta, rhizomate decumbente cauliformi tereti c. 6 mm. diametente carnosio ad nodos radicante, radicibus longius-