

Studia Orchidacearum Japonicarum IV*

Orchidaceae Formosanae Novae Atque Criticae

auctore

Noriaki Fukuyama

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32) *Orchis taiwanensis* FUKUYAMA, sp. nov.

Terrestris, gracilis, erecta vel stricta, glaberrima, 7-18 cm. alta, tuberculis pilosiusculis globosis vel ovoideis ellipsoideisve. Caulis plerumque remote bifoliatus interdum trifoliatus, basi 1-2-vaginatus, vaginis membranaceis apice acutis obtusisve caulem arcte amplectentibus.

Folia erecto-patentia, linearia vel lanceolato-linearia lanceolatae, in exsiccato chartacea, apice acuta vel acuminata, basi foliis superioribus abrupte contracta vel gradatim attenuata et caulibus articulata, basi foliis inferioribus in vaginam decurrentia et amplectentia, c. 3.5-9 cm. longa, medio 4-15 mm. lata, utrinque glabra, trinervata.

Racemus terminalis, suberectus, secundus, 2-5 cm. longus, laxiuscule 3-11-floratus, bracteis lanceolatis apice acuminatis basi contractis utrinque glabris c. 1-1.5 cm. longis superioribus sensim brevioribus.

Flores rosei, apertientes, pedicellis rectis glabris bracteis subaequilongis raro duplo longioribus. Sepalum intermedium ellipticum, apice obtusiusculum, ad basin angustatum, concavum, dorso medio costa prominens, membranaceum, c. 5 mm. longum, medio 2.5 mm. latum, utrinque glabrum, uninervatum. Sepala lateralia posteriore valde reflexa, oblique oblonga vel ovato-oblonga, latere superiore lente truncata, apice obtusiuscula, basi paullo contracta, margine superiore leviter revoluta, dorso medio costis prominentia, c. 5-6 mm. longa, infra medium 3-3.5 mm. lata, utrinque glabra, uninervata. Petala cum sepalo intermedio in galeam conniventia, oblique oblonga, apice obtusa, basi contracta, margine lente irregulariter undulata, membranacea, sepalis paullo minora, medio c. 2.5 mm. lata, utrinque glabra, uninervata.

Labellum sessile, erecto-patens, circuitu semi-orbiculatum vel ovato-orbiculatum, c. 1 cm. longum, inter apices loborum lateralium c. 1.1 cm. latum, supra minutissime pilosiusculum, basi truncatum vel obtusum, medio leviter vel manifeste trilobatum, lobis lateralibus oblique oblongis vel

* Continued from Bot. Mag. (Tokyo). 48 (1935), p. 442.

amplectentibus.

Flores glabri, albescentes, 3–10 in apice caulis dense racemosi, racemo erecto subsecundo, bracteis ovato-lanceolatis apice acuminatis basi paullo contractis membranaceis utrinque glabris margine integris vel plus minusve irregulariter dentatis pedicellos paullo superantibus, pedicellis ellipsoideis c. 5 mm. longis glaberrimis.

Sepalum intermedium oblongo-lanceolatum, concavum, apice obtusiusculum, basi paullo contractum, utrinque glabrum, membranaceum, c. 5.5 mm. longum, supra basin 2–2.5 mm. latum, trinervatum. Sepala lateralia sub labello patentia, intermedio paullo minora, oblique ovato-oblonga, sursum sensim angustata, apice obtusiuscula, basi leviter contracta, utrinque glabra, c. 4 mm. longa, supra basin 1.5 mm. lata, trinervata. Petala sepalis lateralibus similia, sed plus minusve majora, cum sepalis intermedio in galeam conniventia, utrinque glabra, membranacea, subhyalina, trinervata.

Labellum sessile, integrum, elobatum, ovato-oblongum, 4 mm. longum, supra basin 2 mm. latum, sursum gradatim angustatum, anteriore cymbiforme sulcatum, apice acutiusculum, posteriore paullo ventricosum, membranaceum, utrinque glaberrimum, basi intus non tuberculatum, trinervatum. Columna brevis, crassa. Anthera cordata.

Nom. Jap. Chikushi-kinuran (nov.)

Hab. Formosa; praef. Taihoku, in saxis inter Chikushiko et Shirin, (N. FUKUYAMA! Mart. 1934. no. 4600. Typus in Herb. Orch. Fuk.)

The present species is nearly related to *Zeuxine strateumatica* SCHLECHTER. It is, however, to be distinguished from it chiefly by the form of lips. Moreover, these two species show very different mode of oecological adaptation. The present species has been found only on the surface of andesite in the mountainous region, while *Zeuxine strateumatica* SCHLECHTER is a common and widely distributed species growing in the secondary grass-land in Formos at lower altitude.

36) *Tainia elliptica* FUKUYAMA, sp. nov.

Terrestris, erecta, 20–35 cm. alta, rhizomate repente brevissimo, radicibus rigidis elongatis teretibus brevissime lanuginosis in exsiccato 2–2.5 mm. diametentibus. Pseudobulbus elongato-ovoideus, sursum sensim rostrato-angustatus, carnosus, glaberrimus, 3.5–5 cm. longus, medio 5–10 mm. in diametro, interdum basi squamatus, squamis pseudobulbum superantibus scariosis nervosis.

Folia solitaria, erecta, ex apice pseudobulbi oriunda, petiolata, lamina elliptica vel oblongo-elliptica, c. 16–17 cm. longa, medio 5–6 cm. lata, apice acuta, basi abrupte angustata et ad petiolum gracilem 5 cm. longum abeuntia, margine integra, chartacea, utrinque glabra, vivo supra subnitida,

trinervata, nervis subtus prominente elevatis, inter nervos multivenulosa.

Scapus erectus, strictus, folium paullo superans, cum racemo 20–35 cm. longus, glaberrimus, remote 2–3-vaginatus, vaginis 3–4 cm. longis alte vaginantibus tubiformibus apice breve acutis. Racemus florifer 5–9 cm. longus, sublaxe floratus, bracteis lanceolatis acuminatis quam pedicellis paullo brevioribus.

Flores apertientes vel subclausi, glabri, pedicellis gracilibus c. 8 mm. longis glabris. Sepala membranacea, 3–5-nervia, utrinque glabra, sepalo intermedio lineari apice acuto c. 13.5 mm. longo 2 mm. lato, lateralibus intermedio similibus sed paullo brevioribus falcatisque. Petala sepalo intermedio aequilonga, sed latiora, c. 3 mm. lata, lineari-oblonga, paullo obliqua, apice acuta, basi haud contracta, utrinque glabra, membranacea, 3–5-nervata.

Labellum leviter recurvum, explanato obovato-cuneatum, c. 10 mm. longum, superiore trilobatum, inter apices loborum lateralium c. 7 mm. latum, inferiore unguiculato-attenuatum et cum pede columnae articulatum, utrinque glaberrimum, lobo intermedio latissimo c. 2.5 mm. longo 6 mm. lato apice truncato ad centrum brevissime acuto, lobis lateralibus minoribus apice acutiusculis, sinibus inter lobos c. 1.5 mm. longis, lamellis 3 parallelis medio ampliatis e basi usque infra apicem decurrentibus, lamella intermedia tenuiore vix longiore interjecta. Columna erecta, semiteres, c. 7 mm. longa, basi ad pedem brevem producta, margine e basi sursum apicem alata. Anthera postice bicornuta.

Nom. Jap. Hiroha-no-aoiran (nov.)

Hab. Formosa; praef. Shinchiku, in silvis Nanga prope Chikutoo, (N. FUKUYAMA! Jan. 7, 1932. no. 4540. Typus in Herb. Orch. Fuk.)

37) **Tainia piyananensis** FUKUYAMA, sp. nov.

Terrestris, erecta, humilis, c. 20 cm. alta, rhizomate repente abbreviato, radicibus gracilibus filiformibus flexuosis brevissime pilosis. Pseudobulbus teres, gracilis, carnosus, glaber, sursum rostrato-angustatus, in exsiccato c. 1.5 cm. longus, medio 1–1.5 mm. diametens, juniore squamis alte amplectentibus ornatus.

Folia in apice pseudobulbi solitaria, erecto-patentia, parva, petiolata, lamina oblonga, c. 6 cm. longa, medio 1.5–1.8 cm. lata, basi ad petiolum gracilem 1.5–2.5 cm. longum abeuntia, margine integra, in exsiccato membranacea, utrinque glabra, vivo viridia, trinervata, nervis subtus prominente elevatis, inter nervos venulosa.

Scapus erectus, strictus, gracillimus, folium valde superans, glaberrimus, cum racemo 20 cm. longus, remotissime 1–3-vaginatus, vaginis inferioribus 1.5–2 cm. longis alte vaginantibus superioribus brevioribus.