

Studia Orchidacearum Japonicarum III
Orchidaceae Formosanae Novae Atque Criticae

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With 3 Text-Figures

19) *Amitostigma yuukiana* FUKUYAMA, sp. nov.

Terrestris, erecta, glaberrima, parvula, 10–13 cm. alta, tuberibus ovoideis vel oblongoïdeis ellipsoideisve pilosiuseculis. Caulis gracillimus, teres, basi vel supra basin unifoliatus, raro bifoliatus, basi infra folia 1–2-vaginatus, vaginis scariosis e basi ad supra medium complete amplectentibus sed partibus superioribus leviter patentibus.

Folia suberecta, anguste oblonga vel ovato-lanceolata, raro longe elliptica, in exsiccato plerumque duplicata, apice obtusa vel acutiuscula, basi decurrentia et amplectentia, chartacea, c. 5 cm. longa, medio 1–1.5 cm. lata, utrinque glabra.

Racemus terminalis, erectus, subsecundus, 2–3 cm. longus, subdense 10–20-floratus, bracteis parvulis c. 5 mm. longis ovato-lanceolatis apice acuminatis basi contractis et leviter amplectentibus utrinque glabris.

Flores parvi, rosei, glabri, subapertientes, pedicellis rectis glabris bracteas duplo vel quadruplo superantibus. Sepalum intermedium ovatum, apice obtusum, basi contractum, concavum, membranaceum, 2.5–3 mm. longum, 1.5–2 mm. latum, cum petalis in galeam connivens, uninervatum, lateralibus obovatis paullo obliquis apice obtusis basi attenuatis c. 3 mm. longis 1.5–2 mm. latis membranaceis uninervatis. Petala oblique elliptica, utrinque acuta, c. 3 mm. longa, 2 mm. lata, membranacea, glabra, uninervata.

Labellum glabrum, subrectum, 3.5–4 mm. longum, infra medium trilobatum, inter apices loborum lateralium explanatorum c. 3.5 mm. latum, ad basin gradatim attenuatum, lobis lateralibus linearibus vel longe triangulatis a lobo intermedio angulo 45° egressis c. 1 mm. longis, lobo intermedio lateralibus longiore, 1.5–2 mm. longo, obovato-euneato, apice truncato-concavo, infra apicem 1.5 mm. lato, calcare cylindrico subrecto obtusiuseculo

apicem plus minusve constrictum, ad margine tenuissimum membranaceum leviter involutumque, ad basin sensim ventricosum, utrinque glabrum, intus medio bilamellatum et basi utroque latere interiori cornibus duobus ornatum, subtus medio sulcatum. Columna brevis, crassa, c. 1.5 mm. longa, in facie antica lamellis duobus verticalibus parallelis ornata, clinandrio membranaceo profundo, anthera sessili ovoideo-cordata acuta.

Nom. Jap. Shirosuji-kagerooran (nov.)

Hab. Formosa; praef. Taihoku, in silvis laurilignosis monte Syo-agyoku-san prope Urai, (SUZUKI-TOKIO!) Sept. 1932. no. 4128. Typus in Herb. Orch. Fuk.).

The genus is new to the flora of Japan.

26) **Liparis nokoensis** FUKUYAMA, sp. nov.

Epiphytica, caespitosa, 13–20 cm. alta, radicibus filiformibus flexuosis rugulosis paullo puberulis in exsiccato c. $\frac{2}{3}$ mm. diametentibus, pseudobulbis approximativis connexis, globosis, carnosus, c. 1 cm. altis, apice bifoliatis, basi vaginatis, vaginis lanceolatis vel ovatis apice acuminatis nervosis.

Folia 2, erecto-patentia, elliptica vel oblanceolata, apice acuta, basi contracta, 3–10 cm. longa, medio 1–1.3 cm. lata, in exsiccato tenuiter coriacea, utrinque glabra, nervis principalibus 5 inter nervos multivenulosa.

Scapus terminalis, gracilis, strictus, glaber, folia duplo vel triplo superans, c. 10–20 cm. altus, complanatus, ad margine anguste alatus, parte florifera angulatus, remote 2–3-squamatus, squamis lanceolatis vel linearibus apice acuminatis 5–15 mm. longis glabris, racemo florifero 3–10 cm. longo, sublaxe florato, bracteis ovato-lanceolatis apice acuminatis basi non contractis pedicellis subaequilongis vel brevioribus glabris.

Flores parvuli, glabri, patentes, pedicellis cum ovarii suberectis c. 5 mm. longis glabris. Sepala subaequiformia et aequilonga, c. 3.5 mm. longa, valde reflexa, sepalo intermedio oblongo apice obtuso basi haud contracto uninervato c. 1 $\frac{1}{2}$ mm. lato, sepalis lateralibus apice obtusis basi plus minusve contractis uninervatis c. 1 $\frac{1}{2}$ mm. latis. Petala linearia, apice obtusa, basi vix vel non attenuata, sepalis aequilonga, basi $\frac{1}{2}$ mm. lata, uninervata.

Labellum supra medium abrupte desuper reflexum, oblongum, supra medium constrictum, c. 3.5 mm. longum, infra medium 2–2.5 mm. latum, antice obcordato-mucronatum, margine integrum, ad basin paullo angustatum, basi bituberculatum, glabrum. Columna elongata, erecta, semiteres, c. 3 mm. longa, basi c. $\frac{2}{3}$ mm. lata, apice leviter incurvata, e basi ad supra medium margine alata. Capsula obovoidea, cum pedicello c. 1.5 cm. longa.

Nom. Jap. Nookoo-kinoeran (nov.)

Hab. Formosa; praef. Taiehu, Nookoo-goe prope Nookoo, (N. FUKUYAMA! Jul. 1930. no. 4129. Typus in Herb. Orch. Fuk.).

The species, which is most nearly related to the present plant, is probably *Liparis Kawakamii* HAYATA, from which one can easily distinguish it chiefly by the form of labellum and the size of flowers.

27) **Oreorchis bilamellata** FUKUYAMA, sp. nov.

Terrestris, erecta, c. 40 cm. alta, pseudobulbis conico-ovoideis vel ovoideis apice acutis basi rotundatis 3-4-nodosis 1-2 cm. altis carnosis, radicibus elongatis, filiformibus, flexuosis, seriseo-pilosis.

Folia terminalia, solitaria, linearia, apice acuminata, ad basin gradatim attenuata, sensim in petiolum 5 mm. longum abeuntia. c. 30 cm. longa, medio 1.3 cm. lata, in exsiccato chartacea, utrinque glabra, nervis principalibus 3 subtus elevatis.

Scapus e nodis pseudobulbi oriundus, simplex, strictus, teres, glaber, folio subaequilongus, cum racemo c. 40 cm. longus, supra basin c. 2.5 mm. diametriens, 2-vaginatus, vaginis inter se remotis alte amplectentibus c. 5 cm. longis acutis vel obtusis, racemo florifero c. 13 cm. longo, c. 20-florato, bracteis ovato-lanceolatis apice acuminatis pedicellis multo brevioribus c. 6 mm. longis utrinque glabris.

Flores patentes, pedicellis cum ovarii gracilibus rectis c. 1 cm. longis. Sepala aequilonga, erecto-patentia, glabra, sepalo intermedio oblanceolato apice obtuso ad basin gradatim attenuato c. 8.5 mm. longo infra apicem c. 2 mm. lato trinervato, lateralibus falcato-ligulatis, apice obtusis, basi plus minusve attenuatis, medio c. 2.5 mm. latis, 5-nervatis. Petala sepalis aequilonga, spatulata, apice obtusa, utrinque glabra, infra apicem 1.5-2 mm. lata, trinervata.

Labellum glabrum, c. 6 mm. longum, basi rotundato-obtusum, basi erectum, medio abrupte declinatum, a medio sursum patens, infra medium trilobatum, lobis lateralibus linearibus rectis c. 3 mm. longis 1 mm. latis columnam plus minusve superantibus, lobo intermedio flabellato, membranaceo, margine anteriore paullo undulato, c. 3 mm. longo, apice 3 mm. lato, lamellis 2 parallelis e basi loborum lateralium sursum medium ornato-lamellis anteriore c. 1 mm. altis. Columna erecta, elongata, c. 5 mm. longa, glabra. Pollinia 4, subglobosa, distineta, inappendiculata.

Nom. Jap. Kumoma-kokeiran (nov.)

Hab. Formosa; praef. Shinhiku, in silvis monte Taihasenzan ad 8000 ped. alt., (N. FUKUYAMA! Jul. 1932. no. 4132. Typus in Herb. Orch. Fuk.).