

# 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 oblongoideis ellipsoideisve pilosiusculis. Caulis gracillimus, teres, basi vel supra basin unifolius, raro bifolius, basi infra folia 1–2-vaginatus, vaginis scariosis e basi ad supra medium complete amplexentibus 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 amplexentia, 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 amplexentibus utrinque glabris.

Flores parvi, rosei, glabri, subapertientes, pedicellis rectis glabris bracteis 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 triangularibus a lobo intermedio angulo 45° egressis c. 1 mm. longis, lobo intermedio lateralibus longiore, 1.5–2 mm. longo, obovato-cuneato, apice truncato-concavo, infra apicem 1.5 mm. lato, calcare cylindrico subrecto obtusiusculo

infra apicem plus minusve constricto c. 2 mm. longo. Columna brevissima, antice infra antheram staminodiis duobus ornata, rostello non prominente.

Nom. Jap. Takasago-hinarian (nov.)

Hab. Formosa; praef. Shinchiku, in herbis alpinis (*Miscantheum transmorrisonicolae*) prope Yuuki, c. 7000 ped. alt., (N. FUKUYAMA! Jul. 1932. no. 4116. Typus in Herb. Orch. Fuk.)

General appearance of the plant gives an impression of *Amitostigma gracilis* SCHLTR. at first sight, but after a closer comparative study of these materials I could not help to consider them to be two distinct species. The plant is generally more rigid than the latter and occasionally has bifoliate leaves. The distinguishing characters between the two species seem to be found in the character and situation of leaves and the shape of sheaths. More over, these two species show very different mode of oecological adaptation. The present species has been found only in the alpine-meadow in Formosa exposed to the strong sun-shine, while *Amitostigma gracilis* SCHLTR. is a shade-plant found in the undergrowth of *Aestivsilvae* (no. 150. Herb. Suzuki-T.) or *Pinetum densiflorae* (no. 3066. Herb. Suzuki-T.) in Kyushu, Shikoku and Honshu.

20) **Herminium pusillum** OHWI et FUKUYAMA, sp. nov.

Terrestre, strictum, pusillum, c. 10-13 cm. altum, glaberrimum, tuberculis globosis 5-7 mm. diametentibus puberulis. Caulis gracillimus, basi vel supra basin unifolius, infra folia 1-2-vaginatus, vaginis in exsiccato submembranaceis fusciscentibus amplectentibus apice obtusiusculis.

Folia solitaria, patentia, ovata vel longe elliptica, apice obtusa, basi ad petiolum abeuntia vel decurrentia, basi amplexicaulia, 2-4 cm. longa, medio 1-1.5 cm. lata, in exsiccato membranacea, utrinque glabra.

Racemus terminalis, erectus, c. 2.5 cm. longus, subdense 8-13-floratus, bracteis pedicello, multo brevioribus subcordatis apice acutiusculis basi truncatis c. 1.5 mm. longis glabris.

Flores apertientes, minuti, pedicellis rectis c. 5 mm. longis cylindricis utrinque constrictis glabris. Sepala inaequalia, uninervata, margine irregulariter denticulata, membranacea, sepalo intermedio late ligulato apice obtusiusculo basi non contracto 1 mm. longo 1 mm. lato, sepalis lateralibus erecto-patentissimis intermedio multo longioribus elongato-oblongis apice acutiusculis basi plus minusve angustatis c. 2.25 mm. longis medio 0.75 mm. latis. Petala sepalo intermedio in galeam conniventia, valde oblique orbiculata, apice rotundata, latere superiore leviter truncata, c. 1.25 mm. longa, membranacea, uninervata, nervis curvatis.

Labellum elobatum, ecalcaratum, ligulatum, e basi sursum sensim angustatum, apice obtusum, c. 2 mm. longum, basi 0.75 mm. latum, glabrum.

Columna brevissima, staminodiis parvulis.

Nom. Jap. Niitaka-mukagosoo (nov.)

Hab. Formosa; praef. Taichuu, in monte Niitaka-yama inter Shuzan et Niitaka-chuuzaiho, (J. OHWI! Jul. 1933. no. 4119. Typus in Herb. Orch. Fuk.).

The species is nearly related to *Herminium gracile* KING et PANTL., as well as to *H. pugioniforme* LINDL. both coming from Sikkim Himalaya. It is, however, to be distinguished from the former by the form of sepals, and is easily distinguished from the latter by the form of lips, while the character of sepals of these two species are almost the same.

21) **Aphyllorchis purpurea** FUKUYAMA, sp. nov.

Saprophytica, aphylla, erecta, c. 60. cm. alta, caule stricto simplici gracili tereti glabro toto subdense purpureo-striato medio c. 3.5 mm. in diametro basi vaginato medio fere 4-5 remote squamato, squamis amplexicaulibus, tubiformibus, c. 2 cm. longis, obtusis, glabris, sensim in bracteas decreescentibus.

Flores subapertientes, fere 10-20 in apice caulis laxe racemosi, pars florifera c. 15 cm. longa, erecta, bracteis patulis vel deflexis lineari-lanceolatis apice acutis basi vix contractis c. 1.5 cm. longis medio 3 mm. latis glabris trinervatis sursum sensim brevioribus, pedicellis cum ovariis rectis, gracilibus, sparsim et brevissime pilosis, bracteis duplo longioribus. Sepala libera, aequilonga, aequilata, glabra, trinervata, sepalo intermedio anguste oblongo cymbiformi apice obtuso basin versus attenuato c. 1.2 cm. longo infra apicem c. 4 mm. lato, sepalis lateralibus oblique ligulatis apice acutiusculis basi contractis. Petala sepalis paullo minora.

Labellum circuitu ovato-oblongum, indivisum, glabrum, apice obtusum, c. 1 cm. longum, supra basin explanate 4 mm. latum, anteriore patens sed margine paullo involutum, posteriore sulcato-concavum, basi stipitatum, stipite cuneato 2 mm. longo utrinque alato, alis lineari-triangularis acutis c. 1.5 mm. longis. Columna elongata, c. 8 mm. longa, plus minusve incurvata, semiteres, apice paullo ampliata.

Nom. Jap. Sumire-muyooran (nov.)

Hab. Formosa; praef. Taihoku, in silvis laurilignosis monte Syogyoku-san, prope Urai, (N. FUKUYAMA! Aug. 1933. no. 4121. Typus in Herb. Orch. Fuk.).

22) **Listera taizanensis** FUKUYAMA, sp. nov.

Terrestris, erecta, pusilla, subfiliformis, c. 11-16 cm. alta, medio foliifera, infra folia glabra, supra puberula, basi univaginata vel evaginata,