

## Studia Orchidacearum Japonicarum V\*

### Orchidaceae Formosanae Novae Atque Criticae

auctore

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With 1 Text-Figure

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41) ***Calanthe pumila* FUKUYAMA, sp. nov.**

Terrestris, *pumila*, c. 20 cm. alta, radicibus teretibus rigidiusculis filiformibus leviter flexuosis puberulis sicco c. 1.5–2 mm. diametentibus.

Folia 4–5, basilaria, suberecta, linearia vel oblanceolato-linearia, apice acuminatissima, basi in petiolum angustum basi vaginantem longe decurrentia, c. 20–30 cm. longa, supra medium c. 8–13 mm. lata, in exsiccato tenuiter coriacea, utrinque glabra, subtus prominente trinervia, inter nervos venulosa.

Scapus e basi fasciculi foliorum oriundus, strictus, glaber, foliis vulgo brevior, c. 15–18 cm. longus, medio c. 2.5 mm. in diametro, remote 4–5-vaginatus, vaginis apice apiculatis ad basin tubiformibus et amplectentibus membranaceis utrinque glabris c. 1.8 cm. longis superioribus minoribus, racemo florifero c. 3 cm. longo subdense florato, bracteis caducis lanceolatis apice acuminatis basi paullo contractis membranaceis subhyalinis glabris.

Flores albescentes, subapertientes, pedicellis cum ovariis rectis c. 1.2 cm. longis glabris. Sepalum intermedium oblongum, apice acuminatum, ad basin plus minusve contractum, c. 1 cm. longum, medio c. 4 mm. latum, utrinque glabrum, membranaceum, trinervatum, sepalis lateralibus intermedio similibus sed paullo longioribus obliquisque. Petala orbiculato-obovata vel orbiculato-elliptica, apice rotundata, ad summam apiculata, ad basin angustata, c. 8 mm. longa, medio 6 mm. lata, utrinque glabra, membranacea, trinervata, nervis lateralibus extorse venulosis.

Labellum c. 6 mm. longum, calcaratum, basi breve bilamellatum, supra basin perprofunde trilobatum, lobo intermedio orbiculato apice rotundato ad summam interdum leviter retuso ad infimam ungue perbrevis perangusto instructo margine integro utrinque glabro c. 4 mm. longo totiusque lato, lobis lateralibus oblongis obliquis obtusis c. 3 mm. longis 2 mm. latis glabris, calcare cylindrico recto apice obtuso c. 6 mm. longo medio 2 mm.

\* Continued from Bot. Mag. (Tokyo), 49 (1935), 306.

plerumque brevior, c. 4–7 cm. altus, teres, glaber, carnosulus, remote 1–2-squamatus, squamis parvis ovato-triangularibus apice acutis sensim in bracteas decreescentibus.

Flores inversi, fere clausi, in apice scapi dense racemosi, parte racemosa c. 1.5–5 cm. longia, bracteis patulis vel paullo deflexis ovato-triangularibus apice acutis vel acuminatis basi vix contractis c. 2.5–3 mm. longis supra basin c. 2 mm. latis carnosulis subtus medio leviter carinatis utrinque glabris, pedicellis erectis bracteis aequilongis vel vix brevioribus compressis ancipitibus deorsum sensim angustatis glabris. Sepalum intermedium ovato-oblongum vel oblongo-triangularatum, apice subacutum, basi non contractum, c. 2 mm. longum, basi c. 1 mm. latum, utrinque glabrum, sepalis lateralibus intermedio majoribus c. 3 mm. longis apice obtusis carnosulis glabris navicularibus alticarinatis, carinis in margines pedicelli decurrentibus. Petala anguste oblonga, apice obtusa vel subacuta, basi non contracta, sepalis breviora et angustiora tenuioraque, c.  $1\frac{1}{3}$ – $1\frac{2}{3}$  mm. longa, medio c.  $\frac{1}{2}$  mm. lata, utrinque glabra.

Labellum ovatum vel triangulato-ovatum, indivisum, apice acutiusculum, basi paullo contractum, c. 2 mm. longum, supra basin c.  $1\frac{1}{3}$  mm. latum, utrinque glabrum, trinervatum. Columna brevissima, apoda, e basi in rostellum bifidum subulatum erectum attenuata. Anthera longe cordata, acuminata.

Nom. Jap. Kookichi-ran (nov.)

Hab. Formosa; praef. Karenkoo, Kenkai-shichoo, in silvis prope Taroko-chaya, (KOOKICHI SEGAWA! Aug. 15, 1934. no. 4562. Typus in Herb. Orch. Fuk.)

The genus is new to the flora of Japan.

45) **Phreatia taiwaniana** FUKUYAMA, sp. nov.

Epiphytica, caespitosa, pusilla, 5–10 cm. alta, radicibus filiformibus teretibus flexuosis glabris, rhizomate in arborem repente tereti vaginis obtecto vel subnudo subremote pseudobulboso, pseudobulbis complanato-globosis paullo obliquis c. 3–5 mm. altis omnibus vaginis acutis scariosis leviter superantibus obtectis apice 1–2-foliatis.

Folia linearia vel anguste oblonga, c. 1.5–4.5 cm. longa, medio 3–7 mm. lata, apice obtusa et suboblique retusa, erecta vel paullo recurva, superne planiuscula, basi canaliculata et in petiolum brevem crassum attenuata. vivo subcarnosa, utrinque glabra, ad costas supra impressa subtus elevata.

Scapus strictus vel erectus, gracillimus, teres, glaber, remote squamis paucis acuminatis ornatus, folia plerumque duplo superans, c. 5–10 cm. longus, racemo florifero subnutante 1–2 cm. longo subdense florato, bracteis ovato-lanceolatis acuminatis 2–2.5 mm. longis membranaceis utrinque

glabris uninervatis.

Flores nivei, apertientes, c. 3.5 mm. in diametro, glabri, pedicellis rectiusculis bracteis longioribus c. 3 mm. longis glabris. Sepalum intermedium ligulatum vel triangulato-oblongum, apice obtusiusculum vel obtusum, deorsum gradatim dilatatum, c. 2 mm. longum, basi 1 mm. latum, membranaceum, uninervatum, sepalis lateralibus cum pede columnae breve adnatis oblique triangulatis apice obtusiusculis membranaceis uninervatis. Petala sepalo intermedio aequilonga, oblonga vel ovato-oblonga, apice acuta, basi leviter contracta, margine integra, infra medium c. 2 mm. lata, membranacea, uninervata.

Labellum cordato-ovatum, c. 1.5 mm. longum, infra medium c. 1 mm. latum, apice acutum, basi abrupte contractum, ad stipitem c.  $\frac{1}{2}$  mm. longum totiusque latum supra concavo-sulcatum abeuns, stipite basi pede columnae c.  $\frac{1}{2}$  mm. longo articulato.

Nom. Jap. Hime-fure-ran (nov.)

Hab. Formosa; praef. Taihoku, in laurisilvis monte Bonbon-goe, inter Tamaru et Dakusui, (N. FUKUYAMA! Oct. 1932. no. 4520. Typus in Herb. Orch. Fuk.); praef. Takao, in silvis monte Niinai-san prope Botan-sha, (N. FUKUYAMA! Mai. 6, 1934. no. 4571.)



Fig. 5. *Luisia botanensis* FUKUYAMA  
(N. Fukuyama Photo.)

46) *Luisia botanensis* FUKUYAMA, sp. nov.

Epiphytica, erecta, c. 20 cm. alta, radicibus in arborem repentibus crassiusculis flexuosis glabris rugulosis. Caulis vulgo simplex, glaber, teres, c. 3 mm. in diametro, vaginis foliorum omnino obtectus, vaginis persistentibus caulem complete amplectentibus cylindricis 1-1.5 cm. longis glabris superficie vivo laevibus sed vetustioribus rugoso-lineatis.

Folia alterna, patentia, paullo recurva, a se 1-1.5 cm. remota, linearia, teretia, carnososa, rigida, vivo plus minusve longitudine rugosa, apice