New or Noteworthy Plant Collections from Myanmar (5):
*Dendrobiunm koyamae*, a New Species in sect. *Formosa* (Orchidaceae)

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A new species, *Dendrobium koyamae* N. Tanaka, T. Yukawa & J. Murata (Orchidaceae; sect. *Formosa*), from Myanmar is described and illustrated. It is distinguishable from the closely related *D. scabrilingue* Lindl., by the larger flowers, obovate petals, rounded, orangish yellow with darker nerves (greenish with darker nerves in *D. scabrilingue*) lateral lobes of the labellum, and prominently crenulate margins of the midlobe of the labellum.

Key words: *Dendrobium, Dendrobium* sect. *Formosa*, Myanmar, new species, Orchidaceae

Field expeditions to the Natma Taung (Mt. Victoria) National Park, Chin State, central western Myanmar, were conducted by a team from the Makino Botanical Garden and the Botanical Gardens of the University of Tokyo in cooperation with the Forest Department, Union of Myanmar Ministry of Forestry. Natma Taung National Park is located in the so-called “Chin Hills”, and Mt. Victoria (21°12'N, 93°35'E) is the highest mountain (3053 m) in this range (Tanaka 2005).

During the expedition to the northern end the Natma Taung National Park in 2004, an undescribed species of *Dendrobium* Sw. (Orchidaceae) was discovered.

*Dendrobium* is distributed widely throughout tropical and warm temperate Asia to Polynesia, and about 1250 species have been recognized (Mabberley 2008). Myanmar, bordering on India, Thailand, Laos and China and extending down the Malay Peninsula, is one of the richest localities for *Dendrobium* and contains both Himalayan and Malesian orchids (Wood 2006).

Morphological studies revealed our discovery, which we name *Dendrobium koyamae*, to belong to section *Formosa* (Benth. & Hook.f.) Hook.f., in which about 50 species have been recognized. Species belonging to this section occur from the Himalaya in the west to the Philippines and Sulawesi in the east. Section *Formosa* is usually characterized by the evergreen stout stem, new sheaths with black or brown hairs, 3-lobed labellum, and prominent mentum. Phylogenetic analyses of macromolecular characters, however, have indicated that sect. *Formosa* does not represent a monophyletic group (Wongsawad et al. 2001, Yukawa 2001).

*Dendrobium koyamae* is morphologically very close to *D. scabrilingue*, but is easily distinguished by the following combination of characters: 1) larger flowers (ca. 4.5 cm vs. 2.5–3 cm in diam. in *D. scabrilingue*), 2) obovate, instead of oblanceolate, petals, 3) orange yellow lateral lobes of the labellum (greenish in *D. scabrilingue*), 4) apparently longer mentum than the

short conical one in *D. scabrilingue*, 5) rounded to truncate apex of the lateral lobes of the label-
lum (acute in *D. scabrilingue*). The calli of the
labellum in *D. koyamae* are weakly verrucose rather than prominently verrucose and papillate
as in *D. scabrilingue*.

Seidenfaden (1985) placed *Dendrobium
hedysmum* Batem. and *D. galactanthum* Schltr.
in synonymy under *D. scabrilingue*. The original
protologues of these two taxa and their accompa-
nying illustrations apparently match *D. scabri-
lingue*, and not *D. koyamae*.

![Diagram of Dendrobium koyamae](image_url)

Dendrobium koyamae Nb. Tanaka, T. Yukawa & J. Murata, *sp. nov.* (Figs. 1 & 2)

Affine *Dendrobio scabridlingue* Lindl., sed floribus majoribus (ca. 4.5 cm vs. 2.5–3 cm diametro), petalis obovatis, latoribus, labeli lobis lateralibus aurantiacis, non viridescentibus, apice rotundatis truncativse, lobo medio margine, prominentem crenulatum, callo labeli dissimili valde differt.


*Plant* epiphytic. *Roots* elongate, fasciculate, compressed, glabrous, chlorophyll-bearing, greenish gray. *Stems* clustered, fusiiform, 8–9 cm long, 1–2 cm in diam., glabrous in age, gradually widening towards apex, thickest at middle, unbranched, covered by persistent leaf sheaths, leaf sheaths with dense black hairs, nodes 5–7, internodes 2–3 cm long. *Leaves* oblong, 6–7 cm long, 1.2–1.5 cm wide, thickly leathery, abaxially densely blackish hairy, adaxially sparsely blackish hairy; apex often unequally bi-lobed; sheaths tightly clasping and covering stem, grayish white, to 3 cm long, with dense blackish hairs, hairs deciduous with age. *Inflorescences* axillary on apical part of stem; peduncle inconspicuous, entirely enclosed by bracts; floral bracts ovate, apex acute, with dense black hairs, 1.5 cm long, 0.5 cm wide. *Pedicel and ovary* greenish white, ca. 2.5 cm long. *Flowers* fleshy, widely opening, scented, ca. 4.5 cm in diam.; sepals and petals white; lateral lobes of labellum pale yellow with bright orange veins, midlobe of labellum yellow with bright orange ridges; column greenish white; operculum greenish yellow; pollinia yellow. *Dorsal sepals* oblong-elliptic, 2.7 cm long, 1.2 cm wide, apex acute. *Lateral sepals* obliquely triangular-falcate, anterior margin 2.5–3 cm long, 1 cm wide at base, posterior margin ca. 4 cm long, apex acute to acuminate; mentum 1.5 cm long. *Petals* obovate, 2.5–3 cm long, 1.5–1.6 cm wide, apex acute. *Labellum* trilobed, recurved, adaxial surface with a broad, plate-like keel between lateral lobes; midlobe obovate, 1.5 cm long, 1.2 cm wide, slightly papillate on keels, adaxial surface with five verrucose keels, margin prominently crenulate, apex rounded; lateral lobes embracing column, subobovate, upper margin dentilicate, apex rounded to truncate. *Column* ca. 7 mm long; operculum cuneate, conical, papillate below.

*Distribution.* Myanmar.

*Note.* Thus far known only from the type locality. Since further searching in other areas within the Natma Taung National Park failed to locate this species, it is likely rare.

*Etymology.* The specific epithet honors Prof. Tetsuo Koyama, director of the Kochi Prefectural Makino Botanical Garden, who initiated the Myanmar-Japanese cooperative program to inventory the plants of Myanmar, and gave us the opportunity to study the Myanmar flora, which lead to the discovery of this new species.
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References


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