

An enigmatic new alleged natural *Odontoglossum* hybrid (*Orchidaceae; Oncidiinae*) from Ecuador

Stig DALSTRÖM & Guido DEBURGHGRAEVE

History and discussion

Odontoglossum hennisii ROLFE, was discovered somewhere in Ecuador or Peru by the collector Wilhelm Hennis, and sent to Messrs. CHARLESWORTH, SHUTTLEWORTH & Co., of Heaton, Bradford, and of Clapham (ROLFE, 1891). In the original description the author compares the type plant with *O. odoratum*, but mentions that its real affinity is with *O. crinitum*, referring to the “peculiar bearded crest, consisting of numerous filiform or thread-like hairs.” (ROLFE, 1891). *Odontoglossum hennisii* differs from *O. crinitum* in having a rather straight inflorescence, larger flowers and different bracts, compared to the “very zig-zag rachis with very rigid spreading distichous bracts, and the flowers rather crowded” (ROLFE, 1891), for *O. crinitum*. ROLFE (1891) adds: “In *O. crinitum* also the crest is more densely bearded.” ROLFE does not mention anything about the possibility of *O. hennisii* being a natural hybrid, although this seems like a plausible explanation of why this taxon is extremely rare in cul-

tivation and herbaria. Only a couple of collections are documented including the original description, and nothing is known about the natural variation. It seems quite possible therefore that *O. hennisii* may represent a natural hybrid, primarily between *Odontoglossum crinitum* RCHB.F., and *Odontoglossum lehmannii* RCHB.F. (also known as *O. cristatellum* Rchb.f.), based on the flower morphology. These two latter species are also sympatric along the eastern slopes of the Andes in central Ecuador. A specimen from Chiguinda in the province of Morona Santiago (J. PORTILLA s.n.) corresponds exactly with this geographic area and also with the morphology of the type plant.

The plant that constitutes the type for the alleged natural *Odontoglossum* hybrid described in this paper, however, was originally purchased from an orchid nursery in Europe by the second author. It was later understood that the plant had originally been collected in Ecuador and exported by the

STROBEL nursery. José (Josef?) Strobel, was a well-known German plant collector and nurseryman who arrived in Ecuador in 1950 and settled in Cuenca together with his wife Elizabeth (both deceased). The purchased plant was labeled “*Cochlioda sanguinea*” [= *Odontoglossum sanguineum* (RCHB.F.) DALSTRÖM], but when it first flowered it turned out to be something entirely different. Instead of having a mass of rose purple flowers, it displayed few yellow and brown flowers with a large and fimbriate lip. This clearly suggests that the plant was collected without flowers in an area where *O. sanguineum* occurs. Photos of the flowers were sent by the second author to Leonore BOCKEMÜHL with the suggestion that it could be the virtually unknown *O. hennisii*. BOCKEMÜHL first dismissed this idea and explained why in a letter to DEBURGHGRAEVE. Later on, however, she must have changed her mind since the photo that was sent to her is included in her monographic treatment as “*Odontoglossum x hen-*

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Odontoglossum lehmannii,
Cachi Pirca, Ekuador/Ecuador

Odontoglossum tenue,
Cachi Pirca, Ekuador / Ecuador

nisi” (BOCKEMÜHL, 1989). The STROBEL plant shows a flower rather different from the type of *O. hennisii*, however, particular in the lip shape, and the true identity remained unresolved for many years.

There are two dried inflorescences in the herbarium of the Museum of Natural History in Vienna (sheets 4520 and 16005, **W**) from “Cachi Pirca”, a locale not found on any map today but is described as “The mountain that lies between the old road from Loja to Cuenca (path Cachi-pirca) and the hamlet of Taquil [author’s translation]” (WOLF, 1879), which is north of Loja in Ecuador. The specimens originate from collections made by Anton Hübsch sometime between 1882 and 1885. Apparently these plants were considered very rare by HÜBSCH, who wrote “*aussehr selten vorgefunden*” [“very rarely found”; authors’ translation] on one label (sheet 4520, **W**). The Cachi Pirca flowers were never identified by REICHENBACH, or at least left undetermined after his death in 1889. These specimens are interesting because they point to a specific locality in southern Ecuador. The collector HÜBSCH apparently worked for Frederik SANDER’s establishments in England and was active in Ecuador at least from 1882-85. He collected plants of *O. lehmannii* RCHB.F., at San Lucas (sheet 48017, **W**) and *O. kegeljanii* MORREN, at Las Juntas (sheet 2091, **W**) and sent plants to SANDER in 1883. Both localities are in the same general area as Cachi Pirca. HÜBSCH also collected *O. tenue* COGN., at Cachi Pirca in 1882 and 1883 (sheets 2116 and 2079, **W**) and it seems plausible that he collected the unidentified specimens then. Whether he sent living plants of the unidentified Cachi Pirca discovery is uncertain. It seems probable though that HÜBSCH found several plants in flower of something he did not recognize, pressed some inflorescences and sent them together with living plants directly to SANDER. In any case, SANDER, or somebody, sent the dried inflorescences of the Cachi Pirca



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specimens to REICHENBACH, supposedly before REICHENBACH’s death in 1889, but presumably never received any identification in return. Whatever happened to any living plants is unknown. After a close examination of the flowers of both the Cachi Pirca specimens and the STROBEL plant, the conclusion is that they represent the same taxon. The Cachi Pirca flow-

ers are somewhat similar to *O. hennisii* flowers but still sufficiently different to be treated separately. The lip is larger, wider and broadly ovate, or spade-shaped, with fimbriate front-lobes of the apiculate lamina, as opposed to the distinctly triangular acuminate front-lobe of *O. hennisii*. The interesting fact is that several *Odontoglossum* species, such as *O. lehmannii*,



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Odontoglossum tenue,
Cachi Pirca, Ekuador / Ecuador



Foto/ Photo: © S. DALSTRÖM

Kleiner Flecken von ursprünglichem Wald zwischen einer Lichtung und einer „wiederaufgeforsteten“ Kiefern-pflanzung. / Small patch of original forest between a clearing and a 'reforested' pine plantation.

O. cruentum RCHB.F., *O. kegeljanii* and *O. tenue* could at least until 2005 still be found in the Cachi Pirca area when visited by the first author and Jan SÖNNEMARK, despite severe deforestation where only small patches of the original forest has been spared. The possibilities of natural hybridization exist and it seems therefore quite plausible that the Cachi Pirca specimens, as well as the STROBEL plant, originate from a natural cross suggestively between *O. kegeljanii* and *O. tenue*. *Odontoglossum sanguineum* can also be found in this general region.

Species of *Odontoglossum* have been transferred to *Oncidium* by Mark CHASE and others (2008, 2009). A justification for rejecting this treatment is explained in more detail elsewhere (DALSTRÖM 2012, 2014).

Taxonomic treatment.

Odontoglossum x strobolorum DALSTRÖM & DEBURGHGRAEVE, **hyb. nat. nov.**

Type: Ecuador. Exact field locality unknown, flowered in cultivation in Belgium in Jan. 1988, G. DEBURGHGRAEVE 106 (holotype: **W**)

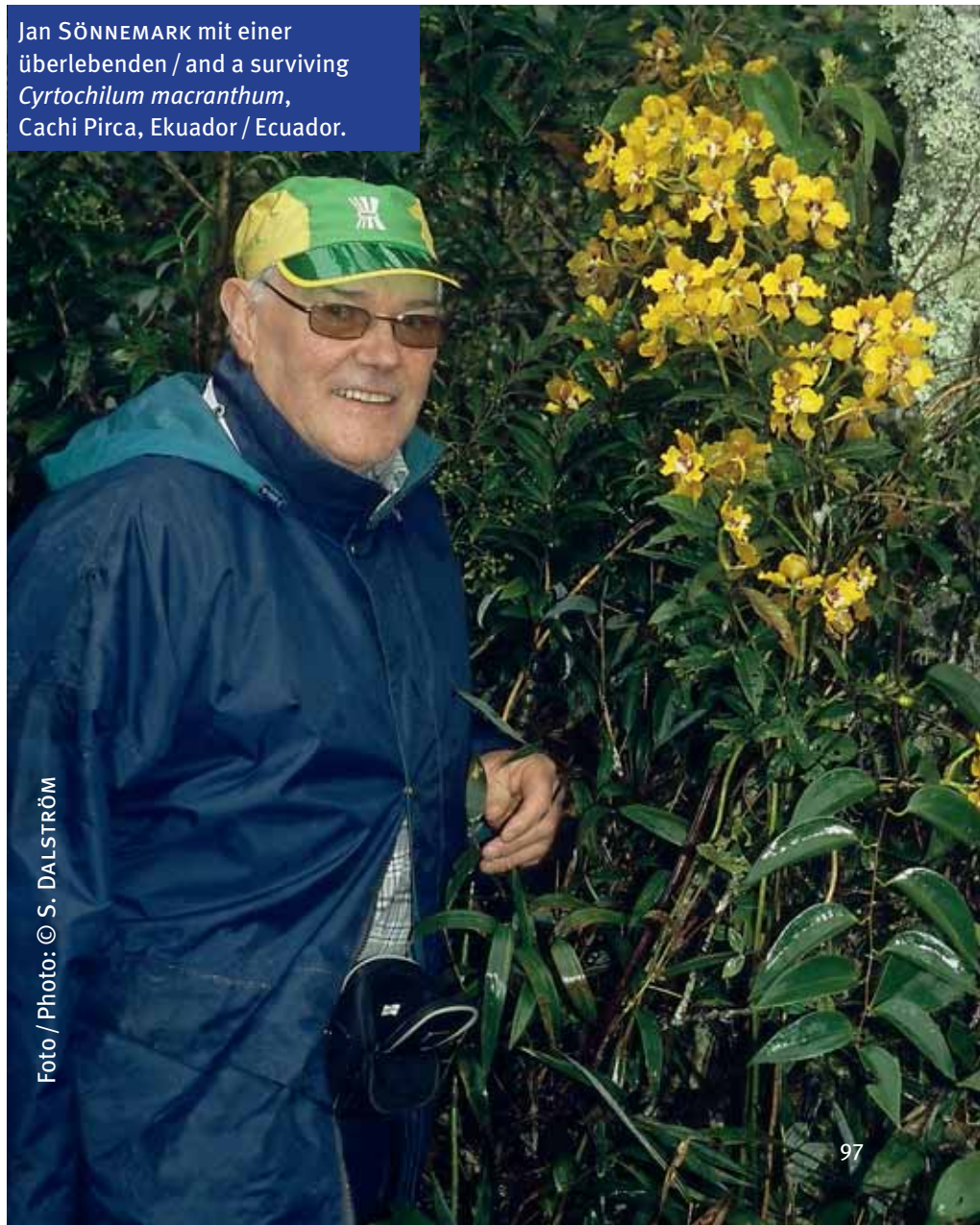
Diagnosis: *Odontoglossum x strobolorum* is similar to *Odontoglossum albertii* ORTIZ, and *O. hennisii*, but differs from the former by having short and indistinctly serrate column wings versus well developed fimbriate to lacerate wings, and from the latter species by having a broadly ovate and spade-shaped lip lamina with distinctly fimbriate and lacerate front-lobes, versus a broadly triangular lip lamina

with an entire and narrowly acuminate front-lobe for *O. hennisii*.

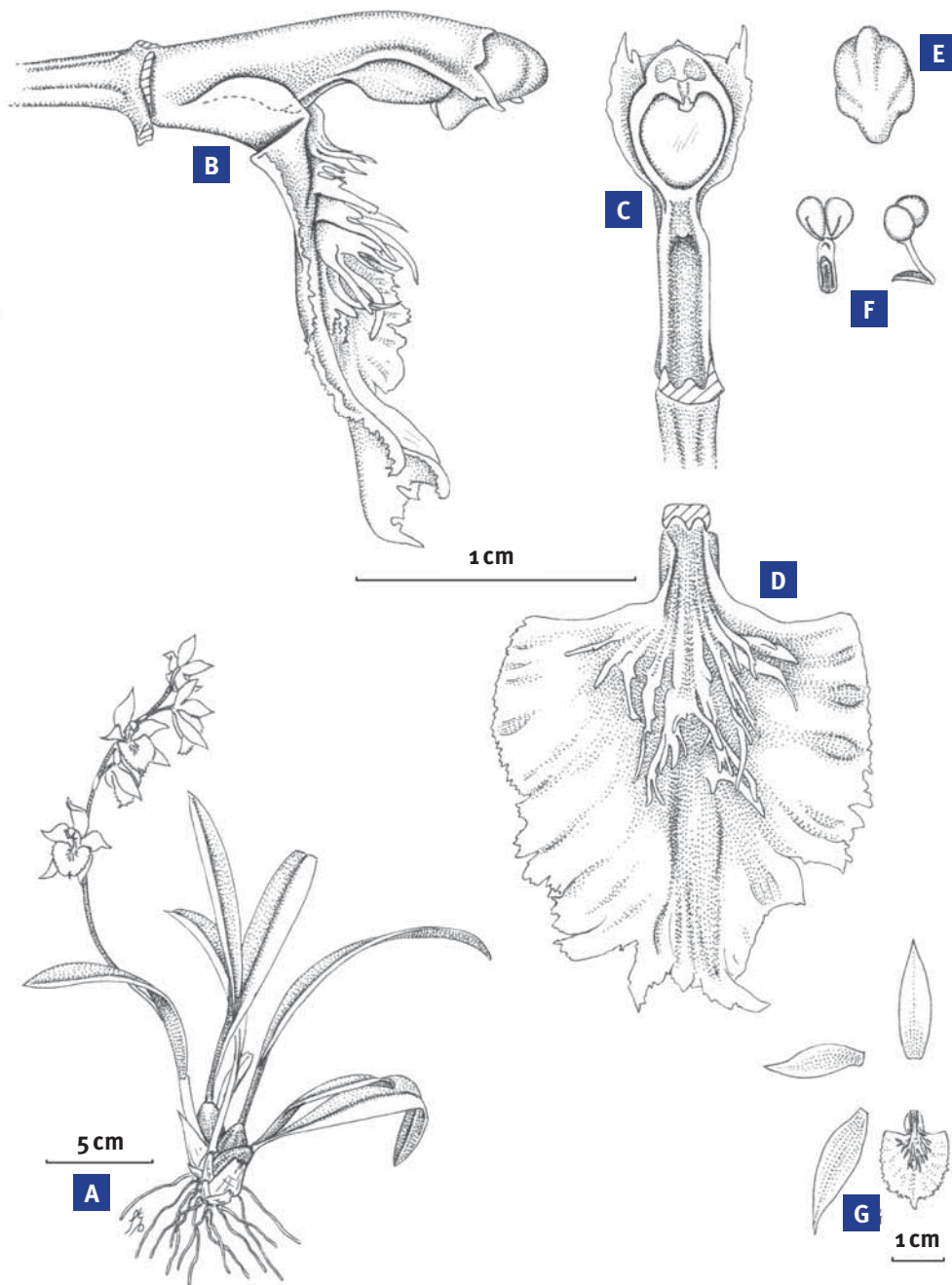
Epiphytic herb (vegetative features diagnosed from photographs of the original plant only and does not exist as preserved material). Pseudobulbs caespitose, ovoid to pyriform, ancipitous and slightly compressed, unifoliate or bifoliate, ca. 3.0–3.5 x 2 cm,

subtended basally by 4 to 6 distichous sheaths, the uppermost foliaceous. Leaf subpetiolate, conduplicate, narrowly ovate, acute, to ca. 13–15 x 2 cm. *Inflorescences* axillary from the base of the outermost sheath, erect and arching, to ca. 25 cm long, almost straight to weakly flexuous, few-flowered raceme (3 flowers on the type but up to 8 has been recorded); *bracts* appressed, scale-like, ca. 0.5–0.7 cm long. Flower slightly campanulate, attractive; *dorsal sepal* yellow with brown markings, elliptic-ovate, narrowly acute to acuminate, ca. 25 x 7 mm; *lateral sepals* similar in size and color, and slightly oblique, 28 x 8 mm; *petals* similar to the sepals in color, weakly unguicu-

Jan SÖNNEMARK mit einer überlebenden / and a surviving *Cyrtochilum macranthum*, Cachi Pirca, Ekuador / Ecuador.



Foto/ Photo: © S. DALSTRÖM

*Odontoglossum x strobolorum*.

A Pflanzenhabitus, B Säule und Lippe seitlich, C Säule von vorn, D Lippe seitlich, E Antherenkappe, von hinten, F Pollinarium, von vorn und seitlich, G Blüte zerlegt. Pflanzenhabitus nach einer Fotografie der Typuspflanze gezeichnet, die Blüte ist nach dem Holotyp gezeichnet, Stig DALSTRÖM.

A Plant habit. B Column and lip lateral view. C Column ventral view. D Lip, dorsal view. E Anther cap, dorsal view. F Pollinarium, ventral and lateral views. G Flower dissected. Plant habit drawn from photograph of the type plant, and the flower drawn from the holotype by Stig DALSTRÖM.

Additional material seen: Ecuador. Loja, Cachi Pirca, collected in 1882–85, A. HÜBSCH s.n. (sheets 4520, 16005, W).

Distribution: The distribution of *Odontoglossum x strobolorum* is largely unknown and is only reported from the scrubby and seasonally wet cloud forests north of Loja in Ecuador, at approximately 2,500–2,600 m.

Etymology: Named in honor of the German plant collector José STROBEL, who arrived in Ecuador in 1950 and together with his wife Elizabeth (both deceased) settled in Cuenca where they established a plant nursery.

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late and slightly oblique, ovate, acuminate, to ca. 20 x 7 mm; lip white with large brown spots of various sizes, fused to the canaliculated ventral side of the column by a very short central keel and a fusion of equal length along the ventral flanks of the column, then free with erect rounded side-lobes for ca. 4.5 mm, then abruptly angled downwards into a truncate, broadly ovate, serrate to lacerate lamina with a fimbriate and apiculate front-lobe, to ca. 20 x 15 mm; callus white, of well-developed and irregularly spreading serrate to lacerate and acute keels and tendrils gradually increasing in size

and emerging from the base of the canaliculated lamina; column whitish to yellowish with some brown marking, slender and clavate, almost erect but weakly curved towards the lip near the apex, ventrally canaliculated with rounded lobes, or angles, and with an insignificant and slightly serrate wing on each side of the stigmatic surface, ca. 13 mm long; anther cap white with some pale brown specks, campanulate and angular rostrate, dorsally lobulate; pollinarium of two cleft/folded pyriform pollinia on a narrowly elongate-ovate, ca. 2 mm long stipe, on a hooked, pulvinate viscidium.

... im Focus

Burkhard HOLM wird mit dem renommierten Klaas Schoone Memorial Award ausgezeichnet



Burkhard HOLM hat den renommierten Klaas Schoone Memorial Award 2015 erhalten, welcher alle zwei Jahre von einer 15-köpfigen Jury an eine Orchideenpersönlichkeit verliehen wird. Der Preis ist international hoch angesehen, da er weltweit ausgeschrieben ist. Im Juni 2015 hat Burkhard HOLM ihn sozusagen für sein Lebenswerk erhalten. Seit über 50 Jahren arbeitet er im Bereich tropische Orchideen. Seit Mitte der 80er Jahre hat sich Herr HOLM verstärkt der Orchideenzucht

gewidmet, von Anfang an arbeitete er im Bereich *Oncidium* und *Odontoglossum*, aber auch bei *Phalaenopsis* mit großen Erfolgen. Zahlreiche Hybriden von ihm sind in London angemeldet worden. Ehe er 1976 seinen eigenen Betrieb gründete, lernte und arbeitete er in renommierten Gärtnereien. Mit 21 Jahren war er bei WICHMANN. Dort war Artur ELLE sein Lehrmeister. Nach abgeschlossener Gärtnermeisterprüfung war er ab 1963 Betriebsleiter in der Lemförder Orchideenzucht, später in der Gärtnerei WINTER in Dingden/Westfalen. Auch heute noch widmet sich HOLM täglich der Kreuzungsarbeit, ihn treibt es an, „etwas Neues zu schaffen“. Ich selbst habe Burkhard HOLM Anfang der 1990er Jahre als einen stillen, bescheidenen Menschen



kennengelernt, der über ein tiefes Orchideenwissen verfügt. Er hat diesen Preis wie kein anderer Orchideenzüchter in Deutschland verdient.

Roland SCHETTLER



Winnaar KSMA 2015:
Herrn Burkhard Holm





Dendrobium cynthiae

Eine neue Art aus der Sektion *Latouria*

André SCHUITEMAN

Dendrobium cynthiae SCHUIT.,
Pflanzengestalt / plant habit.

ser orchideenreichen Insel stammt. Es ist mir eine Freude, sie hier zu beschreiben und sie nach Cynthia HILL zu benennen.

***Dendrobium cynthiae* SCHUIT., spec. nov.**

Typus: Herkunft unbekannt, wahrscheinlich aus Neuguinea, Cynthia HILL cult. s.n. 2014 (Holotypus **K**; Isotypus **UC**).

Wurzeln unbehaart, 2,5 mm im Durchmesser, weiß mit grünen Spitzen. Pseudobulben dicht beieinander stehend, schmal keulenförmig, 9–23 cm

Dendrobium cynthiae SCHUIT.
Zeichnung / Drawing: Judi STONE,
von der Typuspflanzensammlung / from the type specimen;
Pflanzengestalt nach einer Fotografie von / plant habit after
a photograph by Steve BECKENDORF.

Vor einigen Jahren, um 2009, wurde ein kleinblütiges *Dendrobium* als unbenannte Art unbekannter Herkunft von einigen Orchideengärtnereien in den USA angeboten. Eine dieser Pflanzen erhielt Cynthia HILL aus San Francisco, in deren Sammlung sie seitdem wächst. Und obwohl es keine aufsehenerregende Art ist, schätzte die bekannte Orchideenliebhaberin ihren stillen Charme und war begierig, sie identifiziert zu bekommen. Verschiedene Experten wurden konsultiert, aber keiner war in der Lage, der Pflanze einen Namen zu geben. Cynthia beschaffte sich weitere Exemplare, um eine Vermehrung zu versuchen, und sie schenkte Material an Herbarien in den USA und in Kew, um eine formelle Beschreibung zu ermöglichen, falls es sich um eine neue Art handeln würde. Als ich das Material in Kew zusammen mit den hervorragenden Fotografien, die von Cynthias Ehemann Steve BECKENDORF anfertigt worden waren, untersuchte, kam ich zu dem Schluß, dass diese Art noch nicht beschrieben war. Sie ist verwandt mit verschiedenen Arten der Sektion *Latouria*, besonders mit *Dendrobium rigidifolium* ROLFE, *Dendrobium montis-yulei* KRAENZL. und *Dendrobium eymanum* ORMEROD. Da alle diese Arten aus Neuguinea stammen, ist es sehr wahrscheinlich, dass diese neue Art ebenfalls von die-



Mittellappen nicht ausgebreitet /
mid-lobe not flattened

Dendrobium cynthiae

Dendrobium cynthiae SCHUIT.,
Infloreszenz / inflorescence.

Foto / Photo: © S. BECKENDORF



A new species of section *Latouria*

André SCHUITEMAN

Some years ago, around 2009, a small-flowered *Dendrobium* was offered for sale as an unnamed species of unknown provenance by a few nurseries in the United States. One of the plants was purchased by Cynthia HILL from San Francisco, in whose collection it thrived ever since. Although it is not a showy species, this well-known orchid amateur appreciated its quiet charm and was eager to have it identified. Various experts were consulted, but none were able to put a name to the plant. Cynthia obtained more specimens to try to get it propagated and also donated material to herbaria in the USA and Kew, to make it possible to prepare a formal description in case it was a new species.

When I examined the Kew material as well as the excellent photographs made by Cynthia's husband, Steve BECKENDORF, I had to conclude that this species is undescribed. It is related to various species in section *Latouria*, especially *D. rigidifolium* ROLFE, *D. montisyulei* KRAENZL. and *D. eymanum* ORMEROD. Since these species are all from New Guinea, it is most likely that the new species is also from that orchid-rich island. It is my pleasure to describe it here and name it after Cynthia HILL.

***Dendrobium cynthiae* SCHUIT.,
spec. nov.**

Type: Provenance unknown, probably from New Guinea, Cynthia HILL cult. s.n. 2014 (holotype K; isotype UC).

Roots glabrous, 2.5 mm diam., white with green tips. Pseudobulbs close together, narrowly clavate, 9–23 cm long, 7–13 mm diam., usually with 3 main internodes, 2–4-leaved at the apex, glossy red-brown. Leaves close together, narrowly oblong, 4.9–9.5 by 1.6–2.8 cm (index 3.0–3.7), rigidly coriaceous, apex unequally bidentate. Inflorescence subterminal, suberect, c. 13 cm long; peduncle c. 7 cm long, 2.3 mm diam., with two obliquely tubular, 7 mm long scales; rachis rather densely c. 5–8-flowered. Floral bracts narrowly triangular, 6–10 by 3–4 mm, acute. Pedicel and ovary curved; ovary almost at right angles to the pedicel; pedicel white, c. 13 mm long, ovary greenish white, obconical, c. 4 mm long, glabrous. Flower small, c. 2 cm diam.; sepals and petals white; lip yellowish green, deeper green to-

wards the apex, callus olive green; column white, column-foot green, anther white tinged green; pollinia deep yellow. Dorsal sepal narrowly ovate, 15 by 7 mm, obtuse, mucronate (mucro c. 0.3 mm long), 5-veined. Lateral sepals obliquely triangular-ovate, 16.5 by 7 mm, obtuse, mucronate, 5-veined; mentum broadly conical, pointing backwards, 4 mm long, rounded. Petals narrowly obovate-subspathulate, 15 by 5 mm, obtuse, mucronate, 3-veined. Lip 3-lobed, when flattened 14 by 13 mm; lateral lobes obliquely obovate, broadly rounded, with slightly raised veins, mid-lobe in natural position folded lengthwise, concave, with an additional convex fold between the mid-lobe and each of the lateral lobes, when flattened transversely oblong, 5.5 by 2.5 mm, truncate, mucronate; callus consisting of three parallel ribs, raising gradually from the base of the lip to form low lamellae towards the apex, the middle one grooved in the basal part, the lateral ribs 8.5 mm long, the middle one 7.5 mm long, all smooth, glabrous, terminating well below the midlobe. Column short, 2.5 mm long, stigma large, 1.8 mm long; column-foot straight, flat, 5 mm long. Anther about rectangular in outline, 2 mm wide; pollinia narrowly oblong, 1.3 mm long. Fruit not seen.

Dendrobium cynthiae is perhaps most nearly related to *D. eymanum*, a species described by Paul ORMEROD in 2005. The new species differs in the following respects:

Dendrobium cynthiae SCHUIT.,
Blüte / flower.

Foto / Photo: © S. BECKENDORF



lang, 7–13 mm im Durchmesser, normalerweise mit 3 Hauptinternodien, am Ende 2–4 blättrig, glänzend rotbraun. Blätter dicht beieinander, schmal länglich, 4,9–9,5 x 1,6–2,8 cm (Index 3,0–3,7 cm), starr ledrig, Spitze ungleich zweigezähnt, Infloreszenz fast endständig, halbaufrecht, ca. 13 cm lang; Blütenstiel ca. 7 cm lang, 2,3 mm im Durchmesser mit zwei schief röhrenförmigen 7 mm langen Schuppen; Blütenstandsachse ziemlich dicht, ca. 5–8-blütig. Blütenhüllblätter schmal dreieckig, 6–10 x 3–4 mm, gespitzt. Blütenstielchen und Ovarium gebogen, Ovarien fast im rechten Winkel zum Blütenstielchen, Blütenstielchen weiß, ca. 13 mm lang, Ovarien grünlich weiß, kegelförmig, ca. 4 mm lang, unbehaart. Blüte klein, ca. 2 cm im Durchmesser; Sepalen und Petalen weiß, Lippe gelblich grün, zur Spitze hin dunkler grün, Kallus olivgrün, Säule weiß, Säulenfuß grün, Anthere weiß, grün angefärbt, Pollinien dunkelgelb. Hinteres Sepalum fast eiförmig, 15 x 7 mm, stumpf, mit scharfer Spitze (Spitze ca. 0,3 mm lang), 5-adrig. Seitliche Sepalen schief triangul-eiförmig, 16,5 x 7 mm, stumpf, mit scharfer Spitze, 5-adrig; Mentum breit kegelförmig, nach unten zeigend, 4 mm lang, gerundet. Petalen schmal, umgekehrt eiförmig-löffelförmig, 15 x 5 mm, stumpf, mit scharfer Spitze, 3-adrig. Lippe 3-lappig, ausgebreitet, 14 x 13 mm; Seitenlappen schief eiförmig, breit gerundet, mit etwas erhabenen Adern, Mittellappen in natürlicher Haltung längs gefaltet, konkav, mit einer zusätzlichen konvexen Falte zwischen dem Mittellappen und jedem der seitlichen Lappen, ausgebreitet quer rechteckig, 5,5 x 2,5 mm, stumpf abgeschnitten, mit scharfer Spitze. Kallus besteht aus drei parallelen Rippen, die sich allmählich von der Basis der Lippe flache Lamellen formend zur Spitze hin entwickelt, die mittlere ist 7,5 mm lang, alle glatt, unbehaart, ziemlich weit unterhalb des Mittellappen endend. Säule kurz, 2,5 mm lang, Narbe groß, 1,8 mm lang; Säulenfuß gerade, flach, 5 mm lang. Anthere im Umriss rechteckig, 2 mm breit; Pollinien schmal länglich, 1,3 mm lang. Früchte nicht gesehen.

Dendrobium cynthiae ist wahrscheinlich *Dendrobium eymanum* am äh-

lichsten, einer Art, die von Paul ORMEROD 2005 beschrieben wurde. Die neue Art unterscheidet sich von ihr in folgenden Merkmalen:

1. Pseudobulben keulenförmig, mit lediglich 3 großen Internodien (*Dendrobium eymanum*: Pseudobulben gleichmäßig dick, mit 5 oder mehr großen Internodien).
2. Kalluskämme die Basis des Mittellappens nicht erreichend (Kalluskämme bis zur Basis des Mittellappens).
3. Mittellappen der Lippe, ausgebreitet, viel breiter als lang (Mittellappen länger als breit).
4. Mentum 4 mm lang (Mentum 7,5–8 mm lang).

Dendrobium eymanum ist eine wenig bekannte Art. Die Blütenfarbe wurde vom Sammler der Typuspflanze, P.J. EYMA, nicht notiert. EYMA, der sie im Wissel Seengebiet im westlichen Neuguinea im März 1939 entdeckte, versäumte es auch, die Höhenlage bei der Typuspflanzenaufsammlung zu notieren. Basierend auf dem beschriebenen Vegetationstyp („Heide“) vermutete Ormerod, dass sie in über 3.000 m NN gesammelt wurde. Allerdings ist dies eine ungesicherte Behauptung, weil heideartige Vegetation in Neuguinea auch in viel niedrigeren Höhenlagen vorkommt, besonders auf armen Sandböden oder dort, wo die Vegetation durch die Einwohner regelmäßig abgebrannt wird. Es ist eher wahrscheinlich, dass *Dendrobium eymanum* in ungefähr 1.800 m Höhe gesammelt wurde, wie die meisten von EYMA's Orchideen aus der Wissel-Seen-Region.

Fotos, die kürzlich von Arthur YIN und Andrew MURRAY im westlichen Teil der Sudirman Gebirgskette in Indonesisch Papua gemacht wurden, zeigen wahrscheinlich *Dendrobium eymanum*, obwohl nicht genug Details zu sehen sind, um sicher zu sein. Die Pflanzen wuchsen terrestrisch, zusammen mit *Nepenthes* und *Lycopodium* spp., in ca. 1.770 m Höhe in sandigem Boden, aber auch in sumpfigem Gelände. Dies ist wahrscheinlich die gleiche Art von heideartiger Vegetation, auf der die Typuspflanze von *Dendrobium eymanum* gesammelt wurde.

Durch die kurzen Kalluskämme von *Dendrobium cynthiae* stimmt sie mit *Dendrobium montis-yulei* (Synonym:

Foto / Photo: © S. BECKENDORF



Dendrobium cynthiae Schuit., Lippe/lip.

Dendrobium terrestre J.J. SMITH) überein, aber andererseits weicht diese Art in den Punkten 1) und 3) genau wie *Dendrobium eymanum* ab, und *D. montis-yulei* hat außerdem warzige Kalluskämme, keine glatten wie *Dendrobium cynthiae* und *Dendrobium eymanum*. *Dendrobium montis-yulei* ist eine viel größere Pflanze mit größeren Blüten (Sepalen sind 2,5–2,9 cm lang).

Es ist wahrscheinlich, dass *Dendrobium cynthiae* aus indonesisch Neuguinea stammt und, wie alle seine nahen Verwandten, möglicherweise im Gebirge oberhalb von 1.500 m NN vorkommt. Ihre Wiederentdeckung in der Natur ist nötig, um festzustellen, ob *Dendrobium cynthiae*, wie die meisten ihrer nahen Verwandten, eine terrestrische Art oder ein Epiphyt ist.

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1. Pseudobulbs clavate, with only 3 large internodes (*D. eymanum*: pseudobulbs of uniform thickness, with 5 or more large internodes).
2. Callus ridges not reaching the base of the mid-lobe (callus ridges extending to the base of the mid-lobe).
3. Mid-lobe of the lip, when flattened, much wider than long (mid-lobe longer than wide).
4. Mentum 4 mm long (mentum 7.5 – 8 mm long).

Dendrobium eymanum is a little-known species. The flower colour was not recorded by the collector of the type, P.J. EYMA, who discovered it in the Wissel Lakes area of West New Guinea in March 1939. EYMA also failed to record the elevation of the type collection. Based on the reported vegetation type (“heath”), ORMEROD suspected that it would have been collected at over 3,000m. However, this is an unwarranted assumption, be-

Foto / Photo: © S. BECKENDORF



Foto / Photo: © A. MURRAY

Dendrobium ?eymanum ORMEROD, Am Standort/in situ.

Dendrobium ?eymanum ORMEROD, Blüten/flowers.

cause heath-like vegetation may occur in New Guinea at much lower elevations, especially on poor sandy soil or where the vegetation is regularly burnt by local people. It is more likely that *D. eymanum* was collected at around 1,800m, like most of EYMA’s orchids from the Wissel Lakes area.

Photos recently made by Arthur YIN and Andrew MURRAY in the western part of the Sudirman Range of Indonesian Papua appear to be *D. eymanum*, although they do not show enough detail to be certain. The plants were growing terrestrially, together with *Nepenthes* and *Lycopodium* spp., in sandy soil in open, boggy conditions at c. 1,770 m elevation. This is presumably the same kind of heath-like vegetation from which the type of *D. eymanum* was collected.

In the short callus ridges *D. cynthiae* agrees with *D. montis-yulei* (syn. *D. terrestre* J.J.SM.), but that species otherwise differs in points 1. and 3. in the same way as *D. eymanum*, and moreover has verrucose callus ridges, not smooth ones as in *D. cynthiae* and *D. eymanum*. *Dendrobium montis-yulei* is also a much larger plant with larger flowers (sepals 2.5 – 2.9 cm long).

It is likely that *D. cynthiae* originates from Indonesian New Guinea and, like all its close relatives, probably occurs in the mountains above 1,500 m elevation. Its rediscovery in the wild is needed to establish whether *D. cynthiae* is, like most of the nearly related species, a terrestrial species or an epiphyte.

Foto / Photo: © A. MURRAY



cm long. Flower colour: sepals and petals are yellowish-green apically, reddish-brown basally; labellum is white, with pink markings; spur yellowish-green. Dorsal sepal: narrowly oblong, cucullate, 2.5 mm long by 1 mm wide. Petals: sub-spathulate, 1.7 mm long by 0.8 mm wide; reflexing slightly. Lateral sepals: falcate, cucullate, 2.5 mm long by 1 mm wide. Labellum: three lobed; side lobes square, very small; mid lobe fleshy, apex rounded, barely 1 mm wide. Spur: conical, 3.5 mm long by 1.5 mm in diameter, with two small calli near the entrance. Pedicel and Ovary: to 7 mm long by 0.5 mm in diameter; there is a short acute bract about 2.5 mm long at the base of each flower.

Habitat and Distribution: *Cleisostoma aikoae* COOTES, is endemic to the Philippines, and grows as an epiphyte, on the undersides of the smaller, outer branches of trees. It grows at elevations of about 600 metres.

Comparison: *Cleisostoma aikoae* Cootes, does not seem to have any close relatives. It can be compared with *Cleisostoma sagittatum* Blume, but differs in the much smaller flowers, the unbranching inflorescence, the differently shaped labellum, and the differently shaped mentum.

Acknowledgements: My sincere thanks to Peter O'BYRNE for his assistance when I was in the process of writing the description.

A New *Cleisostoma* (*Orchidaceae*) Species from the Philippines

Jim COOTES

During a hike in the mountains at the back of Puerto Galera, in the north of the island of Mindoro, Philippines, in March 2013, Mr. Ravan SCHNEIDER and Aiko, the daughter of his partner Josephine SANIEGA, found a fallen tree at an elevation of about 600 metres. As is their usual custom, they closely studied the fallen branches and a *Cleisostoma* species was found in bloom. The flowers were preserved in alcohol for closer study by the author. The flowers have since been studied and compared to species from the Philippines and her neighbouring countries. No match has been found and I hereby conclude that this is a previously undescribed species. I propose to call this species *Cleisostoma aiko-*

ae COOTES in honour of its discoverer, Miss Aiko SANIEGA.

***Cleisostoma aikoae* Cootes sp. nov.**

Type: Philippines, Mindoro, Mount Thimble at ca. 600 metres elevation, on a fallen tree. **Holotype:** NSW907364

Plant Description:

Growth habit: semi-pendulous, monopodial. Stem: reaching lengths of 12 cm by 3.5 mm in width; bearing the leaves at the apex. Leaves: leathery; alternate; narrowly rectangular; to 9 cm long by 2 cm wide. Inflorescences: pendulous; overall to 19 cm long by 1.5 mm in diameter, bearing many blooms about 4 mm in diameter; rachis to 12

