

**A NEW SPECIES OF CORYBAS (ORCHIDACEAE)
FROM PAPUA NEW GUINEA**

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***Corybas royenii* Kores, sp. nov. — Fig. 1.**

Herba parva erecta, 1—3(—7) cm alta. *Tuber* globosum, 4—6 mm diam., albidum aut dilute brunneum, subtiliter villosum. Rhizomata atque pars subterranea alba, sparse villosa. Pars suprateranea caulis dilute viridis, glabra, ad basim per unicam vaginam tubularem inclusa. *Vagina* 8—12 mm longa, uninervis, distaliter paululum expansa, ultimo discreta per 1—2 mm, pars discreta acuminata, apice cirriformi. *Caulis* semiteres 1—7(—10) cm longus. *Folium* ovatum aut elliptico-ovatum, 1.5—3(—6) per 1—1.5(—2) cm latum, supra pallide viride, infra pallidius, apex anguste acuminatus, basis breve attenuata atque in duas costas caulem decurrens, costa supra impressa, infra manifeste elevata, nervi basales utroque latere 1, convergati, nervi suprabasales 4 ad 6 utroque latere, laxe scalariformiter reticulati, venae marginales absunt. *Pedicellus* teres, 2—4 mm longus, glaber, per unicam bracteam subtentus. *Bractea* linearis, canaliculata, (5—)10—17 per 2—3 mm, dilute viridis, anguste acuta, uninervis, glabra. *Ovarium* ascendens, atque paululum inflexum, cylindricum, 6—10 per 2—3 mm, viridi-albidum, tortum, 6-sulcatum, glabrum. *Sepalum* medium erectum, spathulatum, 20—30 mm longum in totum, 7—9-nervatum, albidum, virgis angustis rubidis 5 ad 7 secundum nervas medias lateralesque praeditum, unguis anguste attenuatus, canaliculatus, 10—15 mm longus, lamina ovata, 10—15 mm per 7—14 mm, margine vix aut non inflexo, integro, apice obtuso. Sepala lateralia reducta, subulata, 3—6 per 0.5 mm, subviridia, uninervia, glabra. *Petala* lateralia discreta, erecta atque paululum reflexa, linearia, acuta, 15—30 per 2—3 mm, ad bases albido-viridia, distaliter gradatim ad rubida fuscantia, ultimo erythronigra ad apices, uninervia, glabra. *Labium* erectum, infundibulare, abrupte reflexum atque ad limbum horizontaliter expansum, 15—20 mm longum in totum, ad basim conspicue bicalcaratum, calcaria 2—3 mm longa, tubus 10—15 mm longus in totum, dorsaliter per totam longitudinem conspicue inflatus, parte inflata longitudinaliter carinata et lateraliter valde compressa, tubus basi viridis ad viridi-albidus, in parte media gradatim ad viridi-brunneum fuscans, partes superiores tubi faucisque porphyreobrunneae, maculis brunneis irregulariter dispositis praeditae, limbus late cordatus, 8—12 per 7—10 mm, apice obtuso, deflexo, margine inflexo, membranaceo, irregulariter fimbriato-laciniato, parte limbi centrali in umbonem hemisphaericalem, 6—10 mm latum, 1—2 mm altum expansa, umbo, faux et pars limbi interior purpureo-nigra, laxe minuteque pubescens, limbus externe viridi-albidus, maculis brunneis irregulariter signatus, glaber. *Columna* erecta, 2 mm longa. *Fructus* non observatus.

Small, erect herb, 1—3(—7) cm tall. *Tuber* globose, 4—6 mm in diameter, white or light brown, finely villose. *Rhizomes* and subterranean portion of the stem white, scattered villose. Above ground portion of the *stem* light green, glabrous, enclosed at the base by a single, tubular sheath. *Sheath* 8—12 mm long, 1-nerved, slightly flared distally, ultimately free for 1—2 mm, free portion acuminate, apex cirriform. *Stem* semiterete, 1—7(—10) cm long. *Leaf* ovate or elliptical-ovate, 1.5—3(—6) by 1—1.5(—2) cm, light green above, paler below, apex narrowly acuminate, base shortly attenuate and decurrent into 2 ribs of the stem, midrib impressed above, prominently raised below, nerves 2 on either side of the midrib, convergate, suprabasal nerves 4 to 6 on either side of the midrib, laxly scalariform reticulate, marginal veins absent. Pedicel terete, 2—4 mm long, glabrous, subtended by a single



Figure 1. *Corybas royenii* Kores.

bract. *Bract* linear, channelled, (5—)10—17 by 2—3 mm, pale green, narrowly acute, 1-nerved, glabrous. *Ovary* ascending and slightly inflexed, cylindrical, 6—10 by 2—3 mm, greenish-white, twisted, 6-grooved, glabrous. Median *sepal* erect, spathulate, 20—30 mm long overall, 7—9-nerved, white with 5—7 narrow maroon bands running along the mid and lateral nerves, claw narrowly attenuate, channelled, 10—15 mm long, blade ovate, 10—15 mm by 7—14 mm, margin slightly or not inflexed, entire, apex obtuse. Lateral sepals reduced, subulate, 3—6 by 0.5 mm, light green, 1-nerved, glabrous. Lateral *petals* free, erect and slightly reflexed, linear, acute, 15—30 by 2—3 mm, whitish-green at the base, darkening gradually to maroon distally, ultimately becoming reddish-black at the tips, 1-nerved, glabrous. *Lip* erect, infundibular, abruptly reflexed and expanded horizontally at the limb, 15—20 mm long overall, conspicuously bicalcarate at the base, spurs 2—3 mm long, tube 10—15 mm long in all, conspicuously inflated dorsally along its entire length, inflated portion longitudinally keeled and strongly compressed laterally, green to greenish-white at the base, gradually darkening to greenish-brown medially, upper portions of the tube and throat purple-brown with irregularly spaced brown blotches, limb broadly cordate, 8—12 by 7—10 mm, apex blunt, deflexed, margin inflexed, membranous, irregularly fimbriate-laciniate, central portion of the limb expanded into a hemispherical boss, 6—10 mm wide by 1—2 mm tall, boss, throat and interior of the limb purple-black, laxly, minutely pubescent, limb externally greenish-white, irregularly marked with brown blotches, glabrous. *Column* erect, 2 mm long. *Fruit* not seen.

PAPUA NEW GUINEA. Enga Province: Burgers Mts., summit region of Mt. Burgers, rooted in moss cushions on the forest floor in dense shade, 3650 m, fl. 27—3—1977, *WEI 1628* (*P. Kores*) (holotype. LAE). — Eastern Highlands Province: Mt. Otto, 3250 m, fl. 26—1—1970, *NGF 47139* (*B. Johns*) (LAE).

Notes. *C. royenii* is a very unusual and extremely prolific species, which tends to form large populations with a very localized distribution. The new species may be distinguished from other species of *Corybas* on the basis of its attenuate leaf base and broadly spathulate, erect median sepal. *C. royenii* appears to be most closely allied to *C. gibbiferus* (Schltr.) Schltr. known from New Guinea. The two species are similar in that both have a spathulate median sepal and a labellum which is inflated dorsally throughout the length of the tubular portion with an irregularly fimbriate-laciniate margin. *C. royenii* can be distinguished from *C. gibbiferus* on the basis of the attenuate as opposed to cordate leaf base. The median sepal in the new taxon is erect, spathulate, uncrested, with a relatively broad blade, while the median sepal in *C. gibbiferus* is hooded, obovate-spathulate, crested, with a relatively narrow blade. In addition, the lip in *C. gibbiferus* is glabrous and expanded vertically at the limb with a reflexed margin, while the lip in *C. royenii* is laxly minutely pubescent and expanded horizontally at the limb with an inflexed margin.

The specific epithet of this new species has been given in honour of Dr. Pieter van Royen, Chairman of the Department of Botany, Bernice P. Bishop Museum, Honolulu, Hawaii; a long standing scholar on tropical vegetation and noted authority on the alpine flora of New Guinea.

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