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EDITORS

M. A. DONK
(Herbarium Bogoriense)

AND

C. G. G. J. VAN STEENIS
(Flora Malesiana)

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NOTES ON THE FLORA OF JAVA—VII*

A. G. L. ADELBERT**

SUMMARY

In connexion with Backer's "Beknopte Flora van Java," a revised key to, and short descriptions of, the species of *Baccaurea* Lour. (Euphorbiaceae) are given; the name *Lannea coromandelica* (Houtt.) Merr. is accepted; and three new species of Labiatae are validly published and described, viz., *Pogostemon javanicus* Backer *ex* Adelb., *P. hortensis* Backer *ex* Adelb., and *Plectranthus petraeus* Backer *ex* Adelb.

INTRODUCTION[1] — In Part IV it was explained in the introduction that, while elaborating the "Beknopte Flora van Java" at Leyden during the years of World War II, much important material was not at hand and could not be obtained on loan.

This applied in particular to the collections of Herbarium Bogoriense. I have been unable after the war, mainly because of more pressing administrative and organizing duties, to find the time necessary to make up for what could not be done when preparing the accounts of the families for which I am responsible. Yet, in some few cases I am now in the position to offer some improvements, for instance in regard with the key to the species of *Baccaurea* and the correct name of *Lannea wodier*.

* The present series serves the purpose of publishing such observations, descriptions (inclusive of new species), and nomenclatorial corrections that have accumulated during the preparation of the "Beknopte Flora van Java," now being published in an emergency edition under the supervision of Dr. C. A. Backer (see Introduction to Part II), and that could not well be incorporated in that work.

The following Parts were issued so far: I, in Bull. Jard. bot. Buitz. III 16: 107-110. 1939; II, in Blumea 5: 490-525. 1945; III, ibid. 6: 302-309. 1948; IV, ibid. 6: 310-336. 1948; V, ibid. 6: 358-362. 1950; VI, ibid. 6: 363-406. 1950.

Apart from these, two other papers were published outside the present series but they serve the same purpose. These are: J. Th. Koster, Notes on Malay Compositae (in Blumea 4: 482-492. 1941) and A. D. J. Meeuse, Notes on Javanese Verbenaceae (in Blumea 5: 66-80. 1942).

** Botanist, Herbarium Bogoriense, Kebun Raya Indonesia.

[1] The stencilled emergency edition ("Nooduitgave") of the "Beknopte Flora van Java" is quoted below in a strongly abbreviated form. Thus, N. Fl. III Fam. XXV: 12. 1941 means Beknopte Flora van Java, Nooduitgave, Aflevering (Fascicle) III, Family XXV, page 12, anno 1941.

To indicate the herbaria when citing specimens or when mentioning where specimens are kept the abbreviations of Lanjouw & Stafleu's "Index Herbariorum. Part I. The Herbaria of the world" (Regnum Vegetabile 2), are used. So BO means Herb. Bogor (Buitenzorg); L, Herb. Leyden; U, Herb. Utrecht.

Moreover, I recently finished the elaboration of the Labiates for the "Beknopte Flora van Java," which was started already at Leyden and which has now appeared. Three new species recognized by Dr. C. A. Backer and which I accepted from his numerous notes put at my disposal, still need to be validly published. These are also included in the present paper.

EUPHORBIACEAE

BACCAUREA

Baccaurea Lour., Flor. cochinch. 661. 1790; Pax & Hoffmann *in* Engl., PflR., Heft 81: 45, 1922.

The key to the species of *Baccaurea* (N. Fl. IV-e Fam. CXII: 26. 1943), should be replaced by the following one.

KEY TO THE JAVANESE SPECIES OF BACCAUREA

1. Plants ♂.
   2. Bracts adnate to primary side-branches of the inflorescence. Nerves of leaves highly elevated beneath, forming a regular lattice-work; adult leaves beneath densely hairy to glabrous.
      3. Adult leaves glabrous to densely stellate-tomentose beneath; primary lateral nerves 6—9 at both sides of the midrib. . . . . 1. *B. deflexa*
      3. Adult leaves with simple hairs beneath; primary lateral nerves 13—16 at both sides of the midrib. . . . . 6. *B. motleyana*
   2. Bracts not adnate to primary side-branches of the inflorescence. Nerves of leaves less highly elevated beneath, more or less regularly reticulate; adult leaves glabrous.
      4. Pedicels jointed. Stamens 4—8. Axis of inflorescence usually densely short-hairy. Leaves at base of branches scale-like, others well developed.
         5. Rudiment of pistil as long as or shorter than the stamens. Bracts only 1 per primary side-branch of inflorescence.
            6. Rudiment of pistil columnar. . . . . 3. *B. javanica*
            6. Rudiment of pistil discoid. . . . . 2. *B. dulcis*
         5. Rudiment of pistil as long as or longer than the stamens. Bracts 3 per primary side-branch of inflorescence.
            7. Inflorescences usually on the older branches in the axils of leaves already fallen. . . . . 7. *B. racemosa*
            7. Inflorescences usually on the younger twigs in the axils of leaves still present. . . . . 5. *B. minutiflora*
      4. Pedicels not jointed. Stamens 4. Axis of inflorescence usually glabrous or nearly so. Leaves all well developed. . . . . 4. *B. lanceolata*
1. Plants ♀.
   8. Ovary 3—5-celled.
      9. Axis of inflorescence hairy. Pedicels jointed.
         10. Adult leaves glabrous beneath, the nerves not very much elevated, more or less regularly reticulate, base cuneate, 7—20 cm long, 3—11 cm wide.

11. Fruit green-yellow; seeds colourless-white. . . . . 7. *B. racemosa*
11. Fruit red; seeds blue. . . . . 5. *B. minutiflora*
10. Adult leaves hairy beneath, the nerves highly elevated, forming a regular lattice-work, base blunt to cordate, 20—35 cm long, 7.5—17 cm wide. 6. *B. motleyana*
9. Axis of inflorescence glabrous. Pedicels whether or not jointed.
12. Pedicels not jointed. Ovary (3—)4—5-celled. . . . . 4. *B. lanceolata*
12. Pedicels jointed close to the flower. Ovary 3-celled. . . . 2. *B. dulcis*
8. Ovary 2(—3)-celled.
13. Nerves of leaves not very much elevated beneath, more or less regularly reticulate. . . . . 3. *B. javanica*
13. Nerves of leaves highly elevated beneath, forming a regular lattice-work. 1. *B. deflexa*

1. BACCAUREA DEFLEXA Mueller Arg.

Baccaurea deflexa Muell. Arg. in DC., Prodr. 15 (2): 462. 1866.

Adult *leaves* elliptic-obovate, base acute to rounded, top acuminate, glabrous to densely stellate-tomentose beneath, glabrous above, 6.5—19 cm long, 3.5—11 cm wide; nerves highly elevated beneath, forming a regular lattice-work, primary lateral nerves 6—9 at both sides of the midrib; petiole tomentose, 2—4.5 cm long. ♂: *Inflorescences* hairy to tomentose, up to 6 cm long; primary side-branches (1—)3-flowered; bracts adnate to the side-branches, free part small, ovate-triangular. *Flowers* sessile. *Tepals* tomentose on both surfaces, triangular-ovate, 0.5—0.75 mm long. *Stamens* 5—7. Rudiment of *pistil* short, broad, tomentose. ♀: *Inflorescences* 7—13 cm long. *Pedicels* 0.75—1 mm long. *Tepals* elliptic-ovate, green-yellow, 1.5—2.5 mm long, desciduous. *Ovary* 2(—3)-celled, ovoid-globose, rather acute, stellate-tomentose. Ripe *fruit* unknown. 10 m high; fl./fr. in July; West Java; alt. 220 and 550 m; forest edge.

2. BACCAUREA DULCIS (Jack) Mueller Arg.

Pierardia dulcis Jack in Trans. Linn. Soc., London 14: 120. 1825. — *Baccaurea dulcis* (Jack) Muell. Arg. in DC., Prodr. 15 (2): 460. 1866.

Twigs glabrous. *Leaves* at base of branchlets scale-like, well developed ones elliptic-oblong-obovate, base cuneate, top very shortly and bluntly acuminate, adult glabrous, 8—25 cm long, 3.5—12 cm wide; nerves not very much elevated beneath, more or less regularly reticulate; petiole glabrous, 1—6 cm long. ♂: *Inflorescences* 6—11 cm long; axis usually densely short-hairy; bracts only 1 per primary side-branch and not adnate to them, triangular. *Flowers* pale-yellow, fragrant; pedicels jointed, short-hairy, 2—3 mm long. *Tepals* ovate-elliptic-about triangular, very short-hairy on both surfaces, about 2 mm long. *Stamens* 6. Rudiment of *pistil* as long as or shorter than the stamens, discoid, hairy. ♀: *Inflorescences* 3—14 cm long; axis glabrous or nearly so; bracts as with ♂. *Pedicels* jointed close to the flower, about glabrous, up to 6 mm long. *Tepals* decid-

uous, narrowly oblong, very short-hairy on both surfaces, up to 8 mm long. *Ovary* 3-celled, ovoid-globular, very short-hairy; ovules 1—2 per cell. *Fruit* trigonous-globular, green-yellow, about 3.5 cm broad, glabrous; seeds ellipsoid, outside white, more inwardly purple-red, between sweet and sour, up to 1.5 cm broad, 10—15 m high; from South Sumatra, in Java sometimes cultivated as a fruit-tree.

3. Baccaurea javanica (Blume) Mueller Arg.

Adenocrepis javanica Bl., Bijdr. 579. 1826. — *Baccaurea javanica* (Bl.) Muell. Arg. *in* DC., Prodr. 15 (2): 465. 1866.

Twigs soon glabrous. *Leaves* at base of branchlets scale-like, well developed ones oblong-lanceolate-obovate, base narrowly cuneate-acuminate, top rather long bluntly acuminate, adult glabrous, 7.5—17 cm long, 3—8 cm wide; nerves not very much elevated beneath, more or less regularly reticulate; petiole soon glabrous, 1—4.75 cm long. ♂: *Inflorescences* about 3.5—10 cm long; axis usually densely short-hairy; bracts only 1 per primary side-branch and not adnate to them, ovate-triangular (sometimes 3-dentate). *Pedicels* jointed, very short-hairy, up to 2 mm long. *Tepals* ovate-triangular, mealy hairy on both surfaces, 1.25—1.5 mm long. *Stamens* 4—6. Rudiment of *pistil* as long as or shorter than the stamens, columnar, thick, with a cavity at the top, short-hairy. ♀: *Inflorescences* with axis very short- or scarcely hairy, 2.5—6 cm long; bracts triangular, very short-ciliate. *Pedicels* articulate rather close to the flower, 2—2.5 mm long. *Tepals* desciduous, oblong, inside mealy hairy, outside nearly glabrous, 4—5.5 mm long. *Ovary* 2(—3)-celled, short-ovoid, short-adpressedly pubescent; cells biovulate. *Fruit* about ovoid-globose, apiculate, about glabrous, green-yellow, dehiscent, 1—1.5 cm broad, 1—2-seeded; seeds about globose or semiglobose, sky-blue, sweet, 8—11 mm broad. 10—20 m high; fl./fr. the whole year; whole of Java; alt. 0.25—1000 m; forests.

4. Baccaurea lanceolata (Miquel) Mueller Arg.

Hedycarpus lanceolatus Miq., Flor. Ind. bat. 1 (2): 359. 1859. — *Baccaurea lanceolata* (Miq.) Muell. Arg. *in* DC., Prodr. 15 (2): 457. 1866.

Leaves elliptic-lanceolate, base acute, top acuminate, adult glabrous, 7—35 cm long, 3—15 cm wide; nerves not very highly elevated beneath, more or less regularly reticulate; petiole glabrous, 2—10 cm long. ♂: Axis of 10—15 cm long *inflorescences* usually glabrous or nearly so; bracts not adnate to primary side-branches, small, triangular, with thin, ciliate-dentate margin. *Pedicels* not jointed. *Tepals* ovate-orbicular, outside glabrous, inside tomentose, 1—2 mm long. *Stamens* 4. Rudiment of *pistil* small, cylindrical-obovoid, short-tomentose. ♀: *Inflorescences*, pedicels and tepals as with ♂; last ones, however, strongly keeled and 2—3 mm long. *Ovary* (3—)4—5-celled, oblong-ovoid, soft-hairy. *Fruit* ellipsoid, glabrous, up to 5 cm long. 6—14 m high; fl./fr. in April, May, and October; Bantam (West Java); alt. 850 m.

5. BACCAUREA MINUTIFLORA Mueller Arg.

Baccaurea minutiflora Muell. Arg. *in* DC., Prodr. 15 (2): 463. 1866.
Baccaurea sanguinea J. J. S. *in* Icon. Bogor. 4: 25 *t.* 309. 1910.

Twigs soon glabrous. *Leaves* at base of branchlets scale-like, well developed ones elliptic-oblong-obovate, base cuneate to about acuminate, top abruptly acuminate, adult glabrous, 7—20 cm long, 3—11 cm wide; nerves not very highly elevated beneath, more or less regularly reticulate; petiole soon glabrous, 0.5—7 cm long. ♂: *Inflorescences* usually on the younger twigs in the axils of leaves still present, 9—24 cm; axis usually densely short-hairy; bracts 3 per primary side-branch, not adnate to them, ovate-triangular or elliptic. *Flowers* pale-yellow, fragrant; pedicels jointed, short-hairy, 1.5—3.5 mm long. *Tepals* orbicular-ovate-triangular-elliptic, tomentose on both surfaces, 1.5—4 mm long. *Stamens* 6—8. Rudiment of *pistil* as long as or longer than the stamens, large, thick, short-soft-hairy, sometimes radiantly ribbed. ♀: *Flowers* pale-yellow, fragrant; pedicels thick, very short-soft-hairy, 0.5—6.5 mm long. *Tepals* deciduous, about elliptic-oblong-ovate, short-soft-hairy, 0.75—1 cm long. *Ovary* about globular, tapering at the top, soft-hairy; cells biovulate. *Fruit* red, about globular, acuminate, very sparsely short-soft-hairy, 3- or sometimes 4-celled, about 2.75 cm broad; seeds blue, 1 per cell, ellipsoid-trigonous, short-soft-hairy. 6—7 m high; perhaps once collected in Java.

6. BACCAUREA MOTLEYANA Mueller Arg.

Pierardia motleyana Muell. Arg. *in* Singer, Flor. ratish. 516. 1865, not seen. — *Baccaurea motleyana* (Muell. Arg.) Muell. Arg. *in* DC., Prodr. 15 (2): 461. 1866.

Adult *leaves* elliptic-lanceolate, base blunt to cordate, top acuminate, with simple hairs beneath, above glabrous, 20—35 cm long, 7.5—17 cm wide; nerves highly elevated beneath, forming a regular lattice-work, primary lateral nerves 13—16 at both sides of the midrib; petiole hairy, 3—10 cm long. ♂: *Inflorescences* 13—25 cm long, hairy to tomentose; bracts 1 per primary side-branch, adnate to them, free part lanceolate. *Pedicels* 1.5 mm long. *Tepals* hairy on both surfaces, elliptic-oblong, acute, 1—1.5 mm long. *Stamens* 4—6. Rudiment of *pistil* short, broad, with a cavity at the top, hairy. ♀: *Inflorescences* up to 35 cm long; bracts 3 per primary side-branch, free part elliptic-oblong-ovate, acute. *Pedicels* jointed, up to 2 mm long. *Tepals* oblong, 4—5 mm long. *Ovary* 3-celled, ovoid to globose, silky. *Fruit* ovoid to globose, sparsely short-hairy, 2.5—3 cm long; seeds 1 per cell, about 1.5 cm long. About 25 m high; sometimes cultivated.

7. BACCAUREA RACEMOSA (Reinwardt ex Blume) Mueller Arg.

Coccomelia racemosa Reinw. *ex* Bl., Cat. Gewas. Buitenz. 110. 1823, nomen nudum. — *Pierardia* (sphalm. *Pierandia*) *racemosa* (Reinw.) *ex* Bl., Bijdr. 579. 1826. — *Baccaurea racemosa* (Reinw. *ex* Bl.) Muell. Arg. *in* DC., Prodr. 15 (2): 461. 1866.

Twigs soon glabrous. *Leaves* at base of branchlets scale-like, well developed ones elliptic-oblong-obovate, base cuneate, top bluntly acuminate, adult glabrous, 7—20 cm long, 3—11 cm wide; nerves not very highly elevated beneath, more or less regularly reticulate; petiole soon glabrous, 0.5—4.5 cm long. ♂: *Inflorescences* usually on the older branches in the axils of leaves already fallen, 5—12.5 cm long; axis usually densely short-hairy; bracts 3 per primary side-branch, not adnate to them, broad- and short-ovate-triangular, middle largest. *Pedicels* jointed, hairy, 2.5—3 mm long. *Tepals* orbicular-ovate-elliptic, pale-yellow, mealy hairy on both surfaces, 1.75—3 mm long. *Stamens* 4—8, seated in cavities at foot of pistil-rudiment. Rudiment of *pistil* as long as or longer than the stamens, thick, somewhat angular, somewhat widened and lobed at the top, hairy. ♀: *Inflorescences* 10—19 cm long; bracts short-ovate-triangular, hairy. *Pedicels* mealy hairy, 0.5 mm long. *Tepals* oblong, mealy hairy on both surfaces, 0.75—1 cm long. *Ovary* about globose, very short-adpressedly hairy; cells biovulate. *Fruit* green-yellow, about globular, indehiscent, finely glabrous, 3- or sometimes 4-celled, 2.5 cm broad; seeds colourless-white, 1—2 per cell, about trigonous, between sweet and sour, 1.75 cm long, 0.75—1.5 cm broad, 15—25 m high; fr./fl. probably the whole year; whole of Java; alt. 1—1000 m; forests, also run wild, often cultivated for fruit.

ANACARDIACEAE

LANNEA COROMANDELICA (Houttuyn) Merrill

Dialium coromandelicum Houtt., Nat. Hist. 2: 39 *t.* 5 *f.* 2. 1774, not seen. — *Lannea coromandelica* (Houtt.) Merr. *in* J. Arn. Arb. 19: 353. 1938.

Odina wodier Roxb., Hort. beng. 29. 1814, nomen nudum; Fl. ind., Ed. 2, 2: 293. 1832. — *Lannea wodier* (Roxb.) Adelb. *in* N. Fl. VII Fam. CLIII: 13. 1948.

I am very thankful to Dr. E. D. Merrill for drawing my attention to his identification of Houttuyn's species as a *Lannea;* see his paper, "Houttuyn's new genera and new species," (*l.c.*), which I overlooked when naming the Javan material as *Lannea wodier*.

LABIATAE

Pogostemon javanicus Backer, *nov. spec.*—**Fig. 1**

Herba robusta, erecta. Folia superiora majore parte plus quam duplo longiora quam lata, acuta, remote serrulata; folia inferiora crasse biserrata usque ad pinnatiloba, dentibus acutis. Pseudospicae paniculiformiter approximatae; axes verticillastrorum haud elongati. Flores sessiles. Dentes calycis anguste triangulares, acuti; dentes duo anteriores aliis minime longiores. Corolla rubro-violacea; labium inferius obtusum usque ad rotundatum. Filamenta in parte superiore dense villosa.

Stem bluntly quadrangular to almost terete, not or only very shallowly canaliculate toward the apex, very densely short-hairy toward the top. Upper *leaves* ovate-oblong shortly lanceolate, narrowly cuneate, base blunt or rounded, top acute to faintly acuminate; lower leaves ovate; all rather densely short-hairy on both surfaces, thick-herbaceous, 1—13 cm long, 0.5—7.5 cm broad; petiole short-hairy, 0—5 cm long. Terminal *panicles* narrow, 25—40 cm long; false spikes often not interrupted toward the top, 1—9.5 cm long; bracts ovate-oblong-lanceolate, base blunt to broadly rounded, top acute or faintly acuminate, hairy like the leaves, their tops often exserted from the spikes. *Calyx* tubular, rather densely short- to long-hairy, inside of throat and teeth or toward mouth sparsely adpressedly short-hairy, in anthesis 5—6 mm long. *Corolla* in general long-tubular to trumpet-shaped, toward mouth or on lips only more or less densely short-hairy, 7 mm long; lobes of upper lip blunt or rounded.

TYPE.—Zollinger *s.n.* = BO 29706.

SPECIMENS EXAMINED.—JAVA. Besuki: Banjuwangi, fl., *Zollinger s.n.* = BO 29706 (*type*). — CULTA. Hort. Bogor., fl., May 24, 1893. *Hallier f. ID. 203* = BO 29705. — WITHOUT ANY DATA. fl., BO 29704.

Distinguishable from *P. menthoides* Bl. by the hairy stamens and from the other Javan species by the blunt lower lip of the corolla.



FIG. 1. *Pogostemon javanicus* Backer ex Adelb.: habit (× 0.3); calyx (× 3.3); stamen (× 3.3). — After Zollinger *s.n.* (type).

Pogostemon hortensis Backer, *nov. spec.*—**Fig. 2**

Herba erecta, aromatica; specimina vetiora frutescentia. Caulis supra nodos plerumque maxime incrassata. Folia altiora vulgo minus quam duplo longiora quam lata; omnia folia crasse bizerrata, dentibus acutis. Pseudospicae paniculiformiter approximatae, non plus quam 1 cm diametro, saepe interruptae; verticillastrorum axes in cincinnos sat claros elongati, abortione saepe minus quam 4 per verticillastrum; bracteae ab utroque latere cincinnorum axium in seriebus imbricatis. Flores sessiles. Calyx glandibus occupatus: dentes anguste triangulares, acuti, sat pares. Labium inferius corollae acutum. Filamenta in parte superiore dense villosa.

Stem bluntly quadrangular, the flattened sides shallowly and broadly canaliculate, densely brown short-hairy, with many minute verruculae. *Leaves* ovate-elliptic-oblong, base narrowly or broadly cuneate and often oblique, usually acutely passing into the petiole, top acute or acuminate, rarely blunt, rather densely adpressedly short-hairy on both surfaces, herbaceous, 2—12 cm long, 1—8 cm wide; petiole densely adpressedly short-hairy, often very narrowly winged toward the top, tinged with purple, 0.5—7 cm long. Terminal *panicles* very loose; false spikes 2—5.5 cm long; cincinni facing one direction, up to 1 cm long (measured along the flowers); bracts and bracteoles ovate-elliptic-lanceolate, base broadly rounded or blunt, top acute or acuminate, outside rather densely and rather long-hairy. *Calyx* narrowly campanulate-tubular, outside rather densely short to rather long-hairy, inside of upper half sparsely adpressedly hairy, in anthesis about 6 mm long. *Corolla* in general tubular to somewhat trumpet-shaped, only a little hairy on the lobes of the upper lip, 7 mm long; lobes of upperlip blunt or rounded.

TYPE.—Buysman 128 = U 2175.

SPECIMENS EXAMINED (all ster. except the fl. type) — JAVA. Rantam: *s. coll., s.n.* = BO 29703. Djakarta: Tjiburial, ca. 1250 m, Apr. 27, 1924, *Bakhuizen van den Brink f. 3254* = U 26655A. Pasuruan: Tengger Mts., near Nongkodjadjar, 1200 m, July 9, 1907, *Buysman 128* = U 2175 (*type*). — CULTA. Djakarta, Bogor, hort. Heyne, ca. 260 m, 1917, *Backer s.n.* = BO 29697—29700; Priangan, Sindanglaja, ca. 1050 m, Jan., 1904, *Valeton s.n.* = BO 29696; Hort. Bogor. (Tjikeumeuh), May 10, 1893, *Hallier f. ?D. 306a* = BO 29693, 29694; ibid., May 1, 1893, *Van Romburgh ?D. 306b* = BO 29701; ibid., *s. coll., s.n.* = BO 29695. — WITHOUT ANY DATA. BO 29702.

Distinguishable from *P. menthoides* Bl. by the hairy stamens, from *P. javanicus* Backer by the acute lower lip of the corolla, from *P. cristatus* Hassk. and *P. cablin* Benth. by the narrow false spikes, and from *P. heyneanus* Benth. by the coarsely serrata leaves with acute teeth.

Plectranthus petiacus Backer, *nov. spec.*—**Fig. 3**

Herba erecta vel ascendens, aromaticus, saepe suffrutescens. Caulis apicem versus, folia et inflorescentiae dense albo-lanatae, atque breviter



FIG. 2. *Pogostemon hortensis* Backer ex Adelb.: habit (× 0.25); inflorescence (nat. size); flower (× 2.5). — After Buysman 128 (type).



FIG. 3. *Plectranthus petraeus* Backer ex Adelb.: habit (× 0.3); calyx (× 3.3); corolla (× 3.3). — After Backer 36387 (type).

glanduloso-pilosae. Folia carnosa. Dichasia verticillastrorum sessila, fasciculiformia, ∞-flora, axibus non elongatis. Dentes calycis acutissimi; anteriores triangulares, duo posteriores subulati usque ad fere lineares. Corolla alba, labio superiore violaceo-suffuso, labiis pilosis et glandibus flavis aut rubris; tubus medius deflexus, quo medio loco intus annulatus pilis paucis atque tuberculis. Discus anterior ligniformis.

Stem terete or almost so. *Leaves* elliptic or ovate, base from cuneate to faintly cordate, top acute or rather blunt, crenate-serrate, 4—10 cm long, 3—6 cm wide; petiole 1—3 cm long. False *spikes* 3—17.5 cm long, running into a much-branched, 14—21.5 cm long, panicle without floral leaves and which in the type is rather remarkably candelabrum-shaped; bracts rhomboid, sessile, acuminate, or, after dropping of the acumen, emarginate, outside woolly, inside, except the sparsely haired top, glabrous, 2.5 mm long and broad. *Flowers* declinate. *Calyx* campanulate, in anthesis somewhat, later conspicuously, curved, inside glabrous, 3—5 mm long. *Corolla* 7—8 mm long; tube from base to the middle gradually widened; central lobes of upper lip almost circular, side-lobes bluntly triangular; lower lip, when unfolded, spathulate, blunt.

TYPE.—Backer 36387 = L 947.85-176.

SPECIMENS EXAMINED. — JAVA. Besuki: Idjen-plateau, ridge of Redjengan, Sempol, 1100 m, fl., June 11, 1927, chaos of pieces of rocks, frequent, *Backer 36387* = L 947.85-176 (*type*, duplicates -174 and -175, all L); Redjengan, 1450 m, fl., July 7, 1916, on rocks, localy frequent, *Koorders 43207* = L 950.161-463.

Distinguishable from the two other Javanese species of *Plectranthus* by its sessile verticillasters.