

OBSERVATIONS ON THE GENUS
OKOUBAKA Pellegr. et Normand
(*OCTOKNEMACEAE*)

BY

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The genus *Okoubaka* was known only by a species and a variety. The discovery of a new species leads us to modify the diagnosis of the genus as follows.

OKOUBAKA PELLEGR. and NORMAND

Trees (monoecious or dioecious) (The monoecy or dioecy has to be specified); glabrous or young parts covered with a pubescence made up of simple and bifurcate hairs or sometimes stellate. Alternate or subopposite leaves; petiole articulated at the base. Inflorescences in racemes or panicles, axillary or borne on old wood, solitary with few fascicles. Flowers unisexual, sessile or provided with a short pedicel, articulated on the axis; perianth simple, with parts reflexed at the top at the time of the anthesis; thecae oblong, small inflected, with longitudinal dehiscence; lobed disk covering all the bottom of the flower and extending between stamens; style 1, insert; unilocular ovary, ovules 3-(4), hanging at the top of a central placenta rising from the bottom of the ovarian cavity. Drupes surmounted by the vestiges of the flower; juicy, mesocarp a little fibrous.

The genus *Okoubaka* PELLEGR. and NORMAND is consequently distinguished from the genus *Octoknema* PIERRE in the following way:

- A. Parts young (branchlets, petioles, inflorescences) glazes of spangled hairs; not articulated petioles; staminodes deprived of anthers; 3-(4)-locular ovary almost until the top, becoming unilocular by tearing of the partitions; 1.5-3 cm length drupes; endocarp emitting towards the interior 6 -10 thin blades **Octoknema**.
- B. Young parts (branchlets, petioles, inflorescences) glabrous or glazes of hairs simple, bifurcate or sometimes stellate; articulated petioles; staminodes with anthers; unilocular ovary; 4-16 cm length drupes; endocarp not emitting thin blades towards the interior..... **Okoubaka**.

The genus *Okoubaka* PELLEGR. and NORMAN currently includes 2 species and 1 variety.

- A. Pubescent branchlets and disks; panicles borne on old wood, of 18-40 cm length; drupes sessile, with 3.5-5 mm thick endocarp:
- I. Blade densely pubescent, glabrous [à la longue]; receptacle and external face of the covered sepals with many stellate hairs; 9 cm long drupes..... 1. *O. Aubrevillei*.
- II. Blade glabrescent to glabrous even in a very young state; receptacle and external face of the sepals covered with scattered, simple, bifurcate or stellate hairs; 15-16 cm long drupes.
..... var. *glabrescentifolia*.
- B. Glabrous branchlets and disks; racemes spiciform, axillary (or borne on old wood?), of 1-3

cm length; drupes pedicellate, ± 4 cm long, with 0.3 mm thick endocarp. 2. *O. Michelsonii*.

1. **Okoubaka Aubrevillei** PELLEGR. et NORMAND, Bull. Soc. Bot. France, XCI, p. 25 (1944) et XCIII, p. 139 (1946).

Ivory Coast and Gold Coast.

- var. **glabrescentifolia** J. LÉONARD, Bull. Jard. Bot. Etat Brux., XVIII, p. 150 (1947); LOUIS et J. LÉONARD, Flore Congo Belge Ruanda-Urundi, Spermat., I. p. 292. t. XXXI (1948).

BELGIAN CONGO: DISTRICT FORESTIER CENTRAL: Yangambi.

2. **Okoubaka Michelsonii** J. LÉONARD et TROUPIN sp. nov.; ab *O. Aubrevillei* PELLEGR. et NORMAND et a var. *glabrescentifolia* J. LÉONARD ramulis petiolis discoque glabro, racemis spiciformibus axillaribus (vel e ligno vetere natis ?) multoque minoribus, pedunculo rhachique sparse haud stellatim puberula. staminodiorum filamentis basi laevibus minusque dilatatis atque fructibus pedicellatis minoribus endocarpio multo tenuiore distincte differt (Fig.4).

Arbor ad 18 m alta, trunco 10 m alto et 0.55 m diam.; ramuli angulati, laeves, glabri fuscique; rami lenticellis elongatis sicco albis dense obtecti. *Folia* etiam juvenilia glabra: petiolus canaliculatus. 3-9 mm longus; lamina elliptica. elliptico-lanceolata interdumve ovato-elliptica. basi cuneata vel subrotundata leviterque inaequilateralis, acuminata, marginibus recurvata, 6-12.5 cm longa et 2.5 cm lata, coriacea, supra atro-viridis nitidaque, subtus pallidus glauco-viridis; nervus subtus prominens, secundarii 4-5. arcuato-adscendentes: rete laxum; stipulae nullae. *Racemi* 10-20-flori, axillares (vel e ramis vetustis orti ?). σ solitarii vel ternati. 1-1.5 cm longi, φ solitarii, spiciformes, 2-3 cm longi; pedunculus rhachisque φ rubro-fusca, cum receptaculo, sepalorum pagina exteriori pedicellis pilis brevibus, simplicibus interdumve furcatis sparse sed prope florum insertionem densius obtectis; bractaeae bracteolaeque ovatae vel ovato-lanceolatae, pubescentes, ciliatae, ± 1 mm longae, caducae; florum σ pedicelli ± 2 mm. $\varphi \pm 1$ mm. fructigeri ad 5 mm longi; alabastra σ globosa, leviter depressa. 2-3.5 mm diam. φ 9 turbinata, apice late obtusa, diametro latissimo 2-3 mm. *Flores* sepalis intus puberulis. staminibus staminodiisve glabris, filamentis basi leviter expansis, disco glabro, stylo truncato-conico glabroque, stigmatibus ± 0.7 mm diam. *Flores* σ subglobosi, 2.5-3 mm longi et 3-4 mm diam.; sepala triangulari-lanceolata, 2-2.5 mm longa et 1.5-1.8 mm lata: filamenta 0.8-1 mm longa et 0.3-0.4 mm basi lata; stylus 1.5-2.5 mm longus. *Flores* φ tubiformes, apice expansi, 5-6 mm longi; et diametro latissimo ± 2 mm; sepala triangularia, lateribus 1.5-2 mm longis; staminodiorum filamenta 0.3-0.4 mm longa et 0.4-0.5 mm basi lata; ovarii cavatura ellipsoidea, 2-2.5 mm alta; stylus ± 1.5 mm longus. *Drupae* oblongae, ± 4 cm longae et ± 2.5 cm diam., exocarpio glabro, viridi dein vivo fusco-flavo, mesocarpio glutinoso, subflavo, endocarpio scleroso, 0.3 mm crasso, fere laevi, vivo albo. *Semina* oblonga, 2.4 cm longa et 1.5 cm diam., sicco subfusca, foveolis minutis albis dense instructa.

Tree to 18 m tall, trunk 10 m tall and 0.55 m diam.; brachlets angular, smooth, glabrous, dark-brown; branches with elongate lenticels with a dense dry white covering. *Leaves* young also glabrous: petiole channeled, 3-9 mm long; lamina elliptic, elliptic-lanceolate occasionally ovate-elliptic, base cuneate or subrotund weakly inequilateral, acuminate, margin recurved, 6-12.5 cm long and 2.5 cm wide, coriaceous, above shiny dark-green, below pale glaucous-green; nerves below prominent, secondary 4-5, arcuate-adscendent; netted venation loose; stipules none. *Raceme* 10-20-flowered, axillary (or arising from older branches ?). σ solitary or terminal, 1-1.5 cm long, φ solitary, spike-like, 2-3 cm long; φ pedunculate rachis dark red, supporting the receptacle, exterior of the sepal lobe, pedicel short haired, simple sometimes branched, sparse but near the flowers insertion densely covered; bracts and bracteoles ovate or ovate-lanceolate, pubescent, ciliate, ± 1 mm long, caducous; σ flower pedicellate ± 2 mm. $\varphi \pm 1$ mm. fruit-bearing to 5 mm long; σ flower bud globose, slightly depressed, 2-3.5 mm diam. φ turbinate, apex broadly obtuse, diameter 2-3 mm wide. *Flowers* sepals puberulent on the interior, stamens, staminodia glabrous, filaments at the base slightly expanded, disk glabrous, style truncate-conical glabrescent, stigma ± 0.7 mm diam. *Flowers* σ subglobose, 2.5-3 mm long and 3-4 mm

diam.; sepals triangular-lanceolate, 2-2.5 mm long and 1.5-1.8 mm wide; filament 0.8-1 mm long and 0.3-0.4 mm wide basally; style 1.5-2.5 mm long. *Flower* ♀ tubular, apex expanded, 5-6 mm long and in width \pm 2 mm in diameter; sepals triangular, laterally 1.5-2 mm long; staminodial filaments 0.3-0.4 mm long and 0.4-0.5 mm wide at the base; ovarian cavity ellipsoidal, 2-2.5 mm high; style \pm 1.5 mm long. *Drupe* oblong, \pm 4 cm long and \pm 2.5 cm diam., exocarp glabrous, green thereafter vivid dark yellow, mesocarp glutinous, yellowish, endocarp hard, 0.3 mm thick, almost smooth, vivid white. *Seed* oblong, 2.4 cm long and 1.5 cm diam., brownish when dry, pitted small white densely constructed.

BELGIAN CONGO:

DISTRICT FORESTIER CENTRAL: Luliba, Minière des Grands Lacs Sud, ait. 1100 m, nov. 1947, *Michelson* 681 (fr.)!; Kimbili, km 264 de la route Costermansville-Shabunda, alt. 1500 m, dèc. 1948, *Michelson* 774 (fl. f typus, Br.)!; Kamituga-Luliba, ait. 1200 m, mars 1949. *Michelson* 943 (fl. f)!

Habitat: Species representative isolated at the foot of the transition forests

Common name: Musese (dial. kirega).

Usage: The bark is consumed by Banya Bongo, which regard it as tonic and antifebrile [anti-fever] (*Michelson*).

Observation. - Arborescent tropophyte with rectilinear trunk and vast, not very leafy summit; young growth purplish red; rhytidome brown yellowish; bark 8 mm thick, uniform color of clear clay when cut, quickly becoming greyish dirty with the air, striated in a characteristic way on its internal, odourless face, with clearly sweetened taste; yellow sapwood clear; heartwood dark yellow (*Michelson*).

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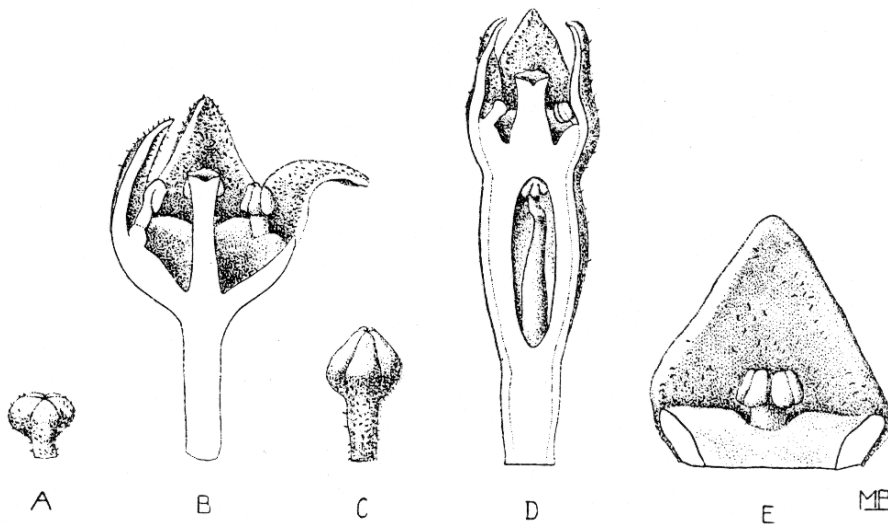


Fig. 1. - *Okoubaka Michelsonii* (LÉONARD et TROUPIN): A. bud ♂ (X 4); B. flower ♂, cut longitudinally (X 8); C. bud ♀ (X 4); D. flower ♀, cut longitudinally (X 8); E. staminode (X 16). (A, B. *Michelson* 943. C, D, E. *Michelson* 774, type).

