

***Vochysia sofiae***  
**(SECTION *Pachyantha*,**  
**VOCHYSIACEAE)**  
**A NEW SPECIES FROM**  
**FRENCH GUIANA**

*Vochysia sofiae* (SECCIÓN *Pachyantha*, VOCHYSIACEAE)  
UNA NUEVA ESPECIE DE LA GUAYANA FRANCESA

*por*

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### RESUMEN

Se describe *Vochysia sofiae* recolectada en la región de St. Georges, Guayana Francesa. Constituye la novena especie de la Sección *Pachyantha* Stafleu (Vochysiaceae). *Vochysia sofiae* es bastante parecida a *V. pinkusii*, pero se pueden diferenciar por el tamaño de las hojas, el número de venas laterales primarias, las vénulas por el envés, el ápice de las yemas florales adultas, la pubescencia del estambre y de los estaminodios.

**PALABRAS CLAVE:** Guayana Francesa, Taxonomía, árbol, *Pachyantha*, *Vochysia*, Vochysiaceae.

### ABSTRACT

*Vochysia sofiae*, collected in St. Georges region, French Guiana, is described and illustrated. It is the ninth species of Section *Pachyantha* Stafleu (Vochysiaceae). *Vochysia sofiae* is quite similar to *V. pinkusii* A. C. Sm., but they can be distinguished by the size of the leaves, the number of main lateral veins, the veinlets on the lower side, the apex of adult flower buds and the pubescence of the stamen and staminodes.

**KEY WORDS:** French Guiana, Taxonomy, Tree, *Pachyantha*, *Vochysia*, Vochysiaceae.

## INTRODUCTION

Looking at the new collections of Vochysiaceae from French Guiana, our attention was caught by a specimen collected in French Guiana, and determined by G. Léotard as *Vochysia cf. neyratii* Normand. Immediately we noticed that it was a different species that even did not match with any of the taxa recorded so far in the Guianas (Marcano-Berti 1998). By studying in greater detail the material (flowers without corolla and pilose ovary), we concluded that it belonged to the Section *Pachyantha* Stafleu (Stafleu 1948, Marcano-Berti 2014). This section is composed of 8 species: *V. jonkeri* Marc.-Berti, *V. kosnipatae* Huamantupa, *V. leguiana* Macbr., *V. pachyantha* Ducke, *V. pinkusii* A.C. Sm., *V. rufescens* Rodrigues, *V. stafleui* Marc.-Berti and *V. steyermarkiana* Marc.-Berti.

## MATERIALS AND METHODS

The description was made with a Binocular Stereo Microscope Zeiss. The measurements of the vegetative parts were taken from dry herbarium material (Olivier Tostain, Tanguy Deville & Guillaume Léotard 2725); Flowers were rehydrated in hot soapy water in order to take the appropriate measurements. The type specimen and its description were compared to all samples and descriptions of the other species of *Vochysia* belonging to the Section *Pachyantha* Stafleu (Ducke 1938; Huamantupa 2005; J. F. Macbride 1930; Marcano-Berti 1981; Marcano-Berti 1982; Marcano-Berti 1986; Rodrigues 1971; Smith 1940; Stafleu 1948)

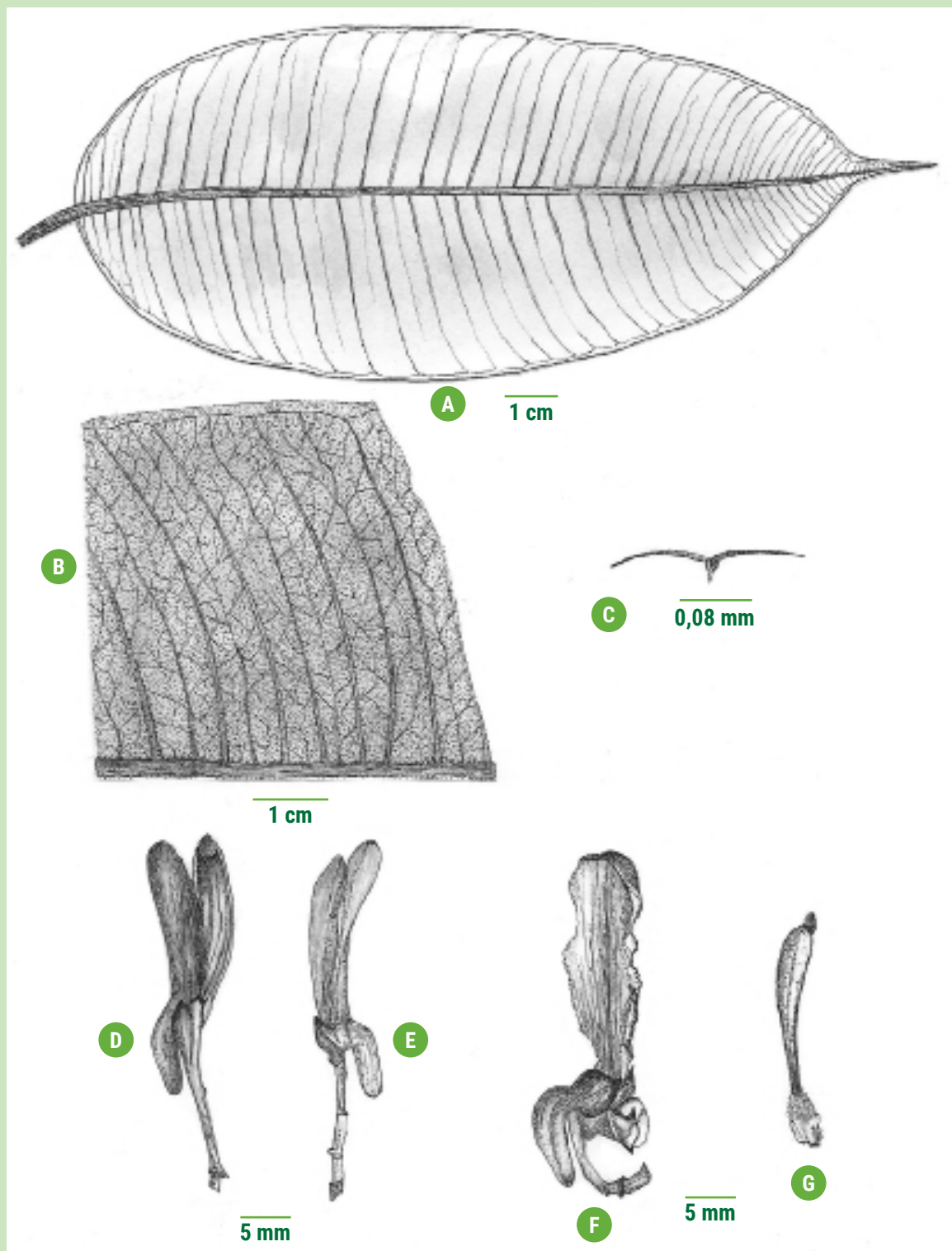
## TAXONOMY

*Vochysia sofiae* Marc.-Berti & O. Poncy, *sp. nov.*  
[FIGURA 1].

Type: Guyane française: Pont sur la Crique Gabaret, RN2, St-Georges. 03° 54' 44" N; 51° 50' 31" W; Alt.: 15 m, 27/3/2009, Olivier Tostain, Tanguy Deville & Guillaume Léotard 2725 (holotype: P MNHN-P- P04776153; isotypes: CAY - CAY101513, CAY101514, CAY101515, P MNHN- P- P04776154, and other places cited on specimen's label: B, K, MO, MPU, NY, U, US, VEN)

Arbor 35 m alta. Ramuli vestutioris glabri, non decorticantes. Stipulae circa 4,5 mm longae, subdeltoideae. Foliis oppositis. Pecioli 1-1,5 longis. Limbo elliptico, circa 18 cm longo et circa 7,6 cm lato, glabro in facie, densissime piloso-ferrugineo-malpighioidi in tergo; venis lateralibus majoribus 27-30 in utroque semilimbo, sub angulo cum vena media circa 75°, venulis numerosis. Inflorescentia paniculata, terminal, 20-25 cm longae. Cincinni 1(-2)-flori Sepalo calcarato in anthesim 2-2,2 longo; calcare 7-9 mm longo, rectum sub angulo cum pedicelo 0-20°; calicis lacinae minors plus minusve 4,5 mm longae. Petala absunt. Antera circa 1,9 cm longa, glabra in dorso; filamentum circa 2 mm longum, glabrum. Staminodia glaberrima, circa 2 mm longa. Ovario pilosum. Capsula ignota.

Tree up to 35 m high. Older branchlets quadrangular, glabrous, cortex persistent. Vegetative buds  $\pm 2$  mm long, densely pubescent. Leaves opposite; stipules subdeltoid,  $\pm 4.5$  mm  $\times$   $\pm 2$  mm, acuminate at apex ( $\pm 3$  mm long), pubescent; petiole of adult leaves 1-1.5 cm long, densely golden to light golden pubescent; blade of adult leaves elliptic,  $\pm 18$   $\times$   $\pm 7.6$  cm, glabrous on the upper side, densely golden to light-golden pubescent over the entire surface of the lower side with 2-branched hairs (malpighioid hairs), 0.12-



**[FIGURE 1]** *Vochysia sofiae*: [A] leaf (upper side). [B] section of the leaf blade (lower side). [C] hair. [D] flower showing the concave side of the anther. [E] flower showing the convex side of the anther. [F] calyx. [G] gynoecium, based on Olivier Tostain, Tanguy Deville & Guillaume Léotard 2725.



**[FIGURE 2]** Photo of holotype (P) of *Vochysia sofiae* downloaded from <https://science.mnhn.fr/institution/mnhn/collection/p/item/p04776153?listIndex=295&listCount=1927>.

0.24 mm long, sessile or subsessile appressed and parallel to the leaf surface; midvein impressed on the upper side, prominent and elevated on the lower side, main lateral veins 27-30 on each longitudinal half of the blade, at an angle of  $\pm 75^\circ$  with the midvein, plane on the upper side, slightly prominent on the lower side, several times thinner than the midvein, reaching the submarginal vein, secondary lateral veins 0-1 between each pair of the main ones, thinner and shorter than the latter, veinlets almost not evident on the upper side, but on the lower one there are numerous main veinlets, straight to undulate, generally oblique between the lateral veins, forming a network of subquadrangular areolae, and between these ones there are secondary veinlets thinner and less prominent than the latter; submarginal vein 0.5-0.7 mm from margin, crenulate, as thick as the main lateral veins; base obtuse; margin entire to slightly undulate; apex cuspidate,  $\pm 1.1$  cm long. Inflorescence paniculate, terminal, densely flowered, 20-25 cm long; cincinni 1(-2)-flowered; peduncle and pedicel together (cincinni 1-flowered)  $\pm 1.4$  cm long, peduncle of cincinni 2-flowered  $\pm 0.8$  mm long, pedicel  $\pm 1.2$  cm long. Adult flower buds S-shaped, densely pubescent, obtuse at apex,  $\pm 3.5$  mm wide near the apical 1/3. Spurred sepal, including the hypanthium or calyx tube, 2-2.2 cm long at anthesis, obtuse-rounded at apex; spur 7-9 mm long  $\times \pm 2$  mm wide near base  $\times \pm 1.5$  mm wide near apex, straight, at an angle of 0-20° with pedicel and about 160° with the rest of sepal, smaller sepals, including the hypanthium or calyx tube, subequal in size: the lateral ones  $\pm 4$  mm long, the anterior ones  $\pm 4.5$  mm long;

petals absent; staminal filament glabrous,  $\pm 2$  mm long, anther  $\pm 1.9$  cm long  $\times \pm 2$  mm wide, about 10 times longer than the staminal filament, glabrous on convex side, pubescent on margin, glabrous laterally on concave side and pubescent along the base of concave side; staminodes glabrous, triangular,  $\pm 2$  mm long. Ovary densely ferruginous pubescent; style 15 mm long, getting wider from base to apex: 0.08 mm at base, 0.12 mm at the middle and 0.17 mm near apex; stigma terminal 0.8 mm wide. Fruit unknown.

This species, dedicated to Sofía Marcano Fernández, senior author's daughter, is quite similar to *V. pinkusii*, however the latter has opposite to 3-whorled leaves; blade of adult leaves 8-14  $\times$  4-6.5 cm; 15-18 main lateral veins on each longitudinal half of the blade, veinlets generally inconspicuous on both sides; adult flower buds acute at apex; stamen pubescent except the thecae glabrous; staminodes 0.6-1.1 mm long, hairy to the basal  $\frac{1}{2}$  of the margin. In the contrary, *Vochysia sofiae* has opposite leaves; blade of adult leaves elliptic,  $\pm 18 \times \pm 7.6$  cm, 27-30 main lateral veins on each longitudinal half of the blade, veinlets numerous on the lower side, forming a network of subquadrangular areolae; adult flower buds obtuse at apex, anther glabrous on convex side, pubescent on margin, glabrous laterally on concave side and pubescent along the base of concave side; staminodes glabrous.

This new species is presently known only from the type specimen, collected along the Gabaret River in a swampy site, 03° 54' 44" N; 51° 50' 31" W; at 15 m altitude, in a lowland evergreen forest of northeastern French Guiana, the wettest part of the

country with > 3500 mm rainfall. This area, close to the Oyapock's estuary and the small town of St-Georges-de-l'Oyapock remains poorly collected. According to the collection information, it flowers in march (during the so called "short dry season").

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