

SCHOMBURGKIA TIBICINIS BATEM. (ORCHIDACEAE) AND ITS VARIETIES

by H. G. JONES.

The five species and their varieties which comprise *Schomburgkia Chauno-Schomburgkia* Schltr. may, in turn, be divided into two smaller subsections or alliances: the « Tibicinis Alliance », consisting of *S. tibicinis* Batem. and *S. Brysiana* Lem.; and the « Galeottiana Alliance », which contains the three remaining species—namely, *S. Galeottiana* A. Rich., *S. Humboldtii* Rehb. f. and *S. Wendlandii* (Rehb. f.) H. G. Jones. In the former group, the pseudobulbs are subconical-elongated and the floral perianth deeply undulate; while in the latter group, the pseudobulbs are distinctly conical in shape and the floral perianth only slightly undulate. Intermediate between these two groups we have the natural hybrid, *S. Parkinsoniana* H. G. Jones.

In two previous articles, published in the American Orchid Society Bulletin, we have dealt with all the species of *Schomburgkia* and *Chauno-Schomburgkia* excepting *S. tibicinis*; hence the present article, devoted to this species and its two varieties, one of which was originally given full specific rank. For reasons which will be apparent, however, we have also included under our discussion of *S. tibicinis* a few further remarks on the related species, *S. Brysiana* Lem., which we had already discussed length in a previous article.

Schomburgkia tibicinis Batem., Orch. Mex. & Guat. t. 30 (1841).

Epidendrum tibicinis Batem. ex Lindl. Bot. Reg. 14 : 8 (1838).

Calliopsis tibicinis Beer, Prakt. Stud. Fam. Orch. : 215 (1854).

Bletia tibicinis Rehb. f. in Walp. Ann. Bot. Syst. 6 : 429 (1862).

Myrmecophila tibicinis Rolfe in Orch. Rev. 25 : 51 (1917).

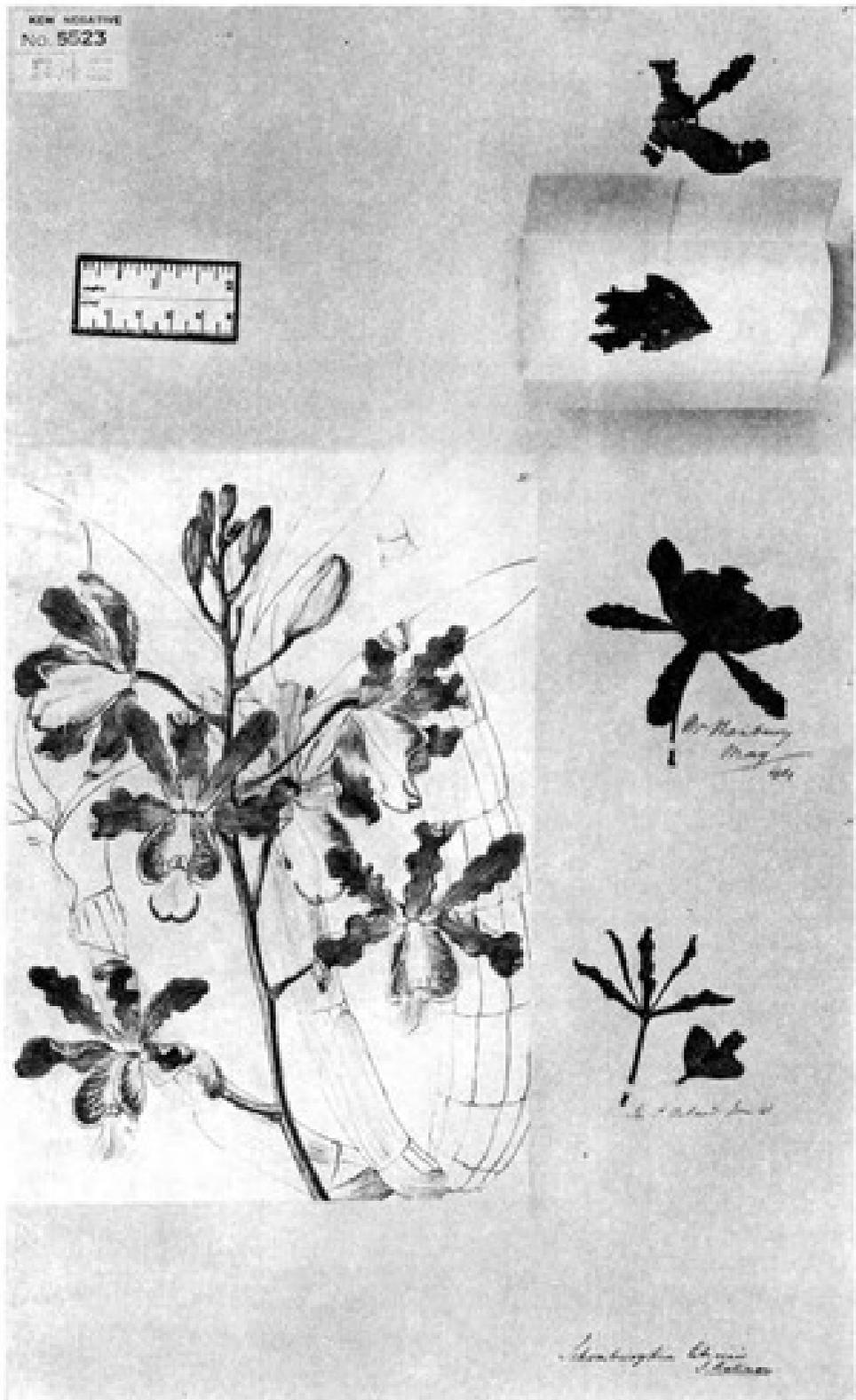
Laelia tibicinis L.O. Wms. in Darw. 5 : 77 (1941).

DISTRIBUTION : Mexico, British Honduras, Guatemala, Honduras and Costa Rica.

S. tibicinis was first described in the great days of the Orchid species, when these plants were eagerly sought after and not infrequently purchased at fantastic prices by wealthy enthusiasts such as Mr. BATEMAN. In a short note appended to the original diagnosis, Dr. LINDLEY quoted Mr. BATEMAN as saying, « Flowers of the size and colour of *Calliopsis labiata*, but I have not the means of giving their specific character ».

From the above remark, and from the vagueness of the latin description—which is confined to the vegetative features of the plant¹

1. The original diagnosis of *Epidendrum tibicinis* Bateman ex Lindley reads as follows: « caulibus cylindraceis 3-4-phyllis foliis ovatis crassissimis triplo longioribus, scapo atissimo giganteo in racemum multiflorum desinente, floribus. »



Pl. 1. — *Schomburgkia hibicinis* Batem. and *S. hibicinis* var. *grandiflora* Lindl. (Kew Herbarium).

—it seems quite evident that, at the time of writing, Mr. BATEMAN had not seen the flowers of the new species which he was describing. Unfortunately, the flowers of *S. libicinis* are rather small in proportion to the large size of the plants; so that the magnificent blooms which Mr. BATEMAN anticipated had no existence outside the writer's imagination. The flowers of *Callielya labiata* Lindl. measure 7-8 inches in diameter; while those of *S. libicinis*—even in its largest form, the var. *grandiflora* Lindl.—do not exceed 4 inches! Dr. LINDLEY was probably referring to this mistake, when later—in describing the var. *grandiflora*—he wrote: « In this instance the plant realizes the expectations that had been formed of it: in other cases it has disappointed them. »

The authorities at the Royal Botanic Gardens, Kew, appear to be somewhat uncertain as to what constitutes the type of *S. libicinis*. Mounted on the sheet of *S. libicinis* in Lindley's herbarium (Pl. 1), there are four flowers: (a) near the middle of the sheet, a very large flower (Mr. Hanbury 44), which is the type-specimen of the var. *grandiflora*; (b) at the bottom of the sheet, a very small flower, dissected, which is labeled « Sir T. Acland June 41 »; (c) at the top of the sheet, an unlabeled flower; and (d) just below the third flower, an envelope labeled *Epidendrum libicinis* Bateman , which contains the fourth flower. From the photographs very kindly supplied by Sir George TAYLOR, Director of the Kew Gardens, flowers (c) and (d) seem reasonably similar, and probably came from the original plant imported by Mr. BATEMAN. We have therefore treated these two flowers as the type-specimen of *S. libicinis*.

The flowers of typical *S. libicinis* measure about 2-2.4 inches in diameter, and are of a rich rosy-purple colour, excepting the front lobe of the lip, which is sometimes white. The species is closely related to *S. Brysiana* Lem., from which it may easily be distinguished by the colour of the flowers and the shape of the lip and the anther.

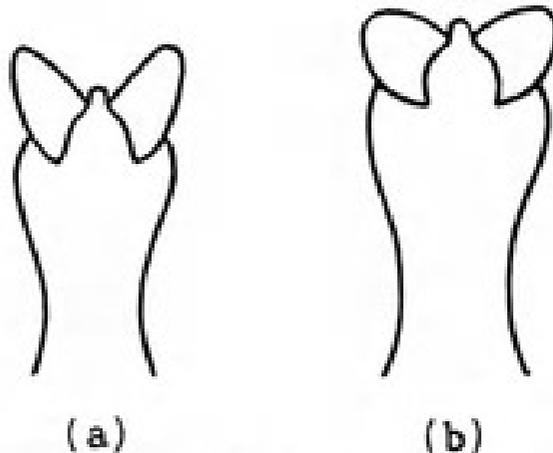
In our « Studies in *Schomburgkia* », which was published in the American Orchid Society Bulletin, 32, January 1963, we attempted to tabulate the five main differences by which *S. libicinis* might be distinguished from *S. Brysiana*. One of these differences we described as follows:

<i>S. libicinis</i>	<i>S. Brysiana</i>
Anther slightly notched.	Anther with two prominent divergent horns.

In the material which we examined during the course of our studies on *S. Brysiana*, this difference seemed to be conspicuous; and as our reference to the condition (quoted above) is self-explanatory, we felt at the time that it was quite adequate for the purpose for which it was intended. Alas! this was mere self-deception; for in a recent article by Messrs. GARAY and SLOCUM, also published in The American Orchid Society Bulletin, 32, May 1963, the authors declare that they have found our statement « completely unintelligible »! Fortunately, we had preserved a small sketch of the two types of anther referred to; and we publish this below (pl. 2)

in the hope that it may serve to illuminate the obscurity of our original statement—if any exists—and also to dispel any doubt or confusion to which we may have inadvertently given rise.

In the same article, the authors also write: « We have not seen any horns on the anther of *S. Brysiana*, nor have we found such illustration by LEMAIRE ». Unfortunately, we cannot altogether agree with the last part of this statement. In the illustration which accompanied Lemaire's original diagnosis of *S. Brysiana*, the drawing of the anther shows that



Pl. 2. — Columns and anthers of (a) *Schomburgkia Brysiana* Lem. and (b) *S. libicinis* Batem., enlarged. (From living material).

organ in a position which renders it impossible to clearly delineate the projecting horns; nevertheless, we believe that the artist has made an honest attempt to depict these features—insofar as his two-dimensional medium would allow—by shading¹. The first part of the remark we interpret to mean that the authors did not see horns on the anthers of the specimens which they examined. If this is correct, then it is greatly to be regretted that in the otherwise excellent drawing of *S. Brysiana*—« prepared from living material »—which they publish, the anther is not shown at all.

In our discussion of *S. Brysiana*, we not only quoted Lemaire's description of the flowers in full, but later, in our tabulation, we again drew attention to the fact that the colour of the flowers was one of the main features by which this species may be distinguished from *S. libicinis*. In spite of this, we find Messrs. GARAY and SLOCUM noting that « It is surprising ... notwithstanding Lemaire's description of the peculiar colour of the flowers ... so far no one heretofore had paid any attention to this fact. »

1. The copy of this illustration which we received from the Museum National d'Histoire Naturelle, Paris, was published in our paper, « Studies in *Schomburgkia* », mentioned above.

Schomburgkia tibicinis var. **exaltata** (Krzl.) H. G. Jones, comb. nov.

Schomburgkia exaltata Krzl. in Mitt. Inst. Allg. Bot. Hamb. 6 : 342 (1926).

DISTRIBUTION : Guatemala.

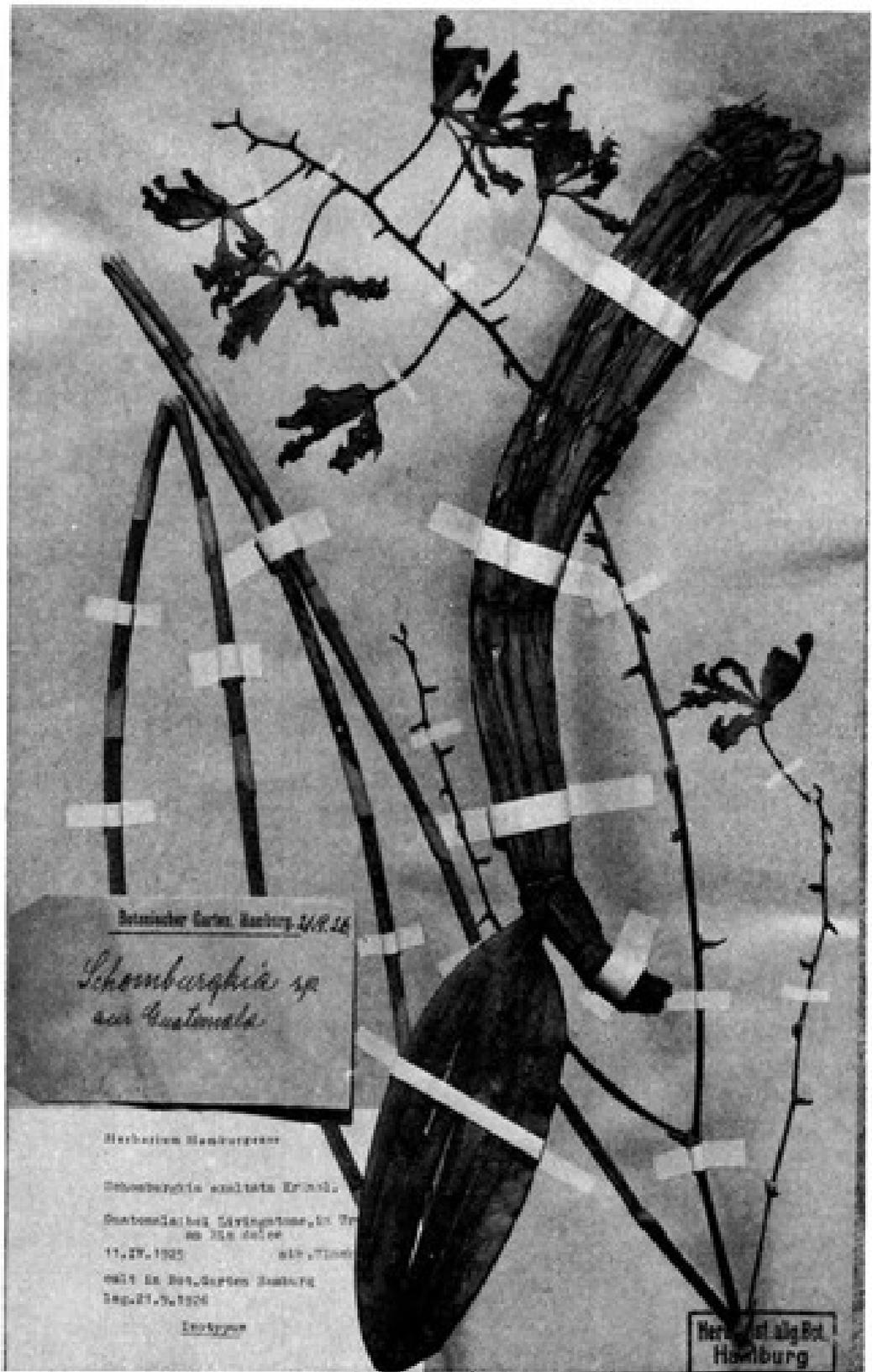
In the second part of « The Orchids of Guatemala » by AMES and CORNELL, (Fieldiana : Botany, 26, 2, 1953), the authors wrote : « *Schomburgkia exaltata* seems to be a small-flowered form of *Laelia tibicinis*¹. We have seen small-flowered specimens that might be referred to *S. exaltata* if it were recognized as distinct from *L. tibicinis*. » Actually, the flowers of this variety are slightly larger than those of *S. tibicinis* Batem.: they are, in fact, roughly intermediate in size between those of the typical form and of the var. *grandiflora*. Measuring about 2.8-3 inches in diameter, the flowers of the var. *exaltata* are of a rich wine-purple hue, which comes nearer to brown than purple in some phases². One is tempted to imagine that it was this quality of colour which the old poet had in mind when he spoke of ... *obna nérov*.

The original plant of *S. exaltata* was collected by ULMCKE near Livingstone in Guatemala on April 11, 1925, and was sent alive to the Botanical Gardens at Hamburg, where it continued to be cultivated until it was destroyed by war nearly twenty years later. Dr. KRÄNZLIN seems to have prepared his diagnosis from the living specimen, for there is no Holotype; but an excellent Isotype specimen was received by the Herbarium Hamburgense on September 21, 1926 (Pl. 3). Judging from a number of photographs of the living plant which have survived from the ensuing years, it must have been a fine specimen; but what a magnificent thing it would have been today, had it been allowed to live on undisturbed! We are grateful to the Director of the Herbarium Hamburgense for having placed this specimen and the photographs at our disposal for a period of six months.

The plant is so obviously a variety of *S. tibicinis* that we are completely at a loss to explain how Dr. KRÄNZLIN came to describe it as a new species. Nevertheless, he did so; and in the discussion appended to the original diagnosis, he not only failed to mention that it showed any sign of relationship with *S. tibicinis*, but he actually compared its flowers with those of *S. undulata* Lindl.! « Von den bisher bekannten typischen Schomburgkien » he wrote, « weicht diese mehrfach ab. Die Stämme zunächst sind dick zylindrisch, aber weder keulen- noch spindelförmig und ohne jegliche Spur einer Aushöhlung durch bzw. für Ameisen; ... Die Blüten jedenfalls sind nach Form und Färbung typische *Schomburgkia*-Blüten, am ähnlichsten denen von *Schomburgkia undulata* Lindl. »

1. The AMES and CORNELL conception of *Laelia tibicinis* was rather broad—to say the least! Apart from *S. exaltata*, their description of this taxon also included the characters of *S. Brysiana*, *S. Brysiana* var. *Thomsoniana*, and *S. tibicinis* var. *grandiflora*; but none of these names were cited in synonymy.

2. One form under cultivation here in Barbados is said to have "dark mahogany-brown" flowers. We have obtained a piece of this plant, but it has not flowered as yet.



Pl. 3. — *Schomburgkia tibeticina* var. *exaltata* (Krztl.) H. G. Jones. (Herbarium Hamburgense).

We must confess that in spite of our efforts to do so, we have not been able to appreciate the full significance of these remarks. The pseudobulb on the isotype-sheet and those shown in the photographs were of exactly the same hollow subconical-elongated type as in all the other specimens of *S. tibicinis* which we have seen; and although it was not possible to detect the ant-hole in the dried specimen—due to the crushed state of the pseudobulb at its base—this condition was clearly visible in one of the photographs. Dr. KRANZLIN did not suggest that *S. exallata* was a natural hybrid between members of the two subgeneric sections of the genus—as he did in the case of *S. campechana*—but nevertheless, to anyone who had not seen the plant, his remarks quoted above would certainly seem to suggest some such type of intermediate condition.

Schomburgkia tibicinis* var. *grandiflora Lindl. Bot. Reg. **31**, t. 30 (184)¹.

DISTRIBUTION : Honduras.

Apparently following a suggestion made by Dr. HOOKER in the Botanical Magazine, **75** (1849), some subsequent writers have united this variety with the type : in his two monographs on the Orchids of Mexico and Central America, published in the second and fifth volumes respectively of Ceiba, Dr. L. O. WILLIAMS even cites HOOKER's article as the original place of publication for the var. *grandiflora*. Actually, this variety may easily be distinguished from the type by its larger, differently coloured flowers and by the differently shaped front lobe of the lip: « floribus duplo majoribus labello extus pallido intus lobo medio luteo, albo v. violaceo-limbato ». The flowers measure 3.2-3.9 inches in diameter: the sepals and petals are light purple, the front lobe of the lip is white and the side lobes orange-yellow streaked with red.

The name *Schomburgkia grandiflora*, which has crept into horticultural literature as a synonym of *S. tibicinis*, is almost certainly based on a misinterpretation of this variety. Unfortunately, however—or perhaps fortunately—the name appears to have been overlooked by the Botanical Bibliographers, and we have not been able to trace its author nor the original place of publication.

ACKNOWLEDGEMENT

We are grateful to Sir George TAYLOR, Director of the Royal Botanic Gardens, Kew, for permission to publish Pl. 1, which is copyright.

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1. A copy of this plate is mounted on the same sheet as the type specimen (see Pl. 1)

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