

The Genus *Schomburgkia* in Mexico and Central America*

By

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INTRODUCTION

The following paper is the first of a series of three regional studies on the genus *Schomburgkia* Lindl., and deals with the species and varieties found in Mexico and Central America—the phytogeographical region sometimes referred to by biologists as “Middle America”. For the purpose of this paper, the term “Central America” is used to cover the republic of Panama and the colony of British Honduras, as well as the five republics which formerly constituted the Central American Federation—namely, Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica. The second and third papers of the series will deal with the genus *Schomburgkia* in the West Indies and in northern South America respectively.

In his two monographs on the orchid flora of the region, published in the second and fifth volumes of “CEIBA”, Dr. L. O. Williams included *Schomburgkia* in the genus *Laelia* Lindl. In the following treatment, I have listed only one new species of *Schomburgkia* described since the publication of these monographs; but a number of taxa not dealt with by Dr. Williams, or listed by him as obscure species, have been newly evaluated. In all, I have listed some 15 species and varieties of *Schomburgkia* for the region, of which 10—representing approximately 32% of the entire genus—appear to be endemic. This factor seems to point clearly to the Middle American region as the original centre of distribution for the genus as a whole.

The present study is based upon living plants cultivated here in Barbados, as well as dried specimens, drawings and photographic records from a number of European and American herbaria. I should particularly like to thank the Directors of the Muséum National d'Histoire Naturelle (Paris) and the Naturhistorischen Museums (Vienna), who very graciously made available on loan parts of the original type-specimens of the species described by Achille Richard and H. G. Reichenbach. The Director of the Herbarium Hamburgense also lent a beautifully preserved isotype-specimen of *Schomburgkia exaltata* Krzl., as well as a number of photographs of the living

* The author should like to take this opportunity of recording his thanks to the Director of the Royal Botanic Gardens, Kew, for permission to reproduce the accompanying plates, which are copyright.

1. Touche, Ross, Bovell & Skeete, Bridgetown, Barbados.

plant, taken prior to its destruction during World War II. Last, but by no means least, I should like to thank the Director of the Royal Botanic Gardens, Kew, who provided excellent photographs of the original type-specimens of the species described by John Lindley and R. A. Rolfe.

ARTIFICIAL KEY TO THE SPECIES AND VARIETIES

1. Floral bracts more than half the length of the pedicels.
 2. Flowers more than 8.2 cm in diameter.....*S. superbiens*.
 2. Flowers less than 8.2 cm in diameter.
 3. Sepals and petals orange or brownish yellow.
 4. Flowers more than 5 cm in diameter.....*S. Lueddemannii*.
 4. Flowers less than 5 cm in diameter.....*S. Lueddemannii*
var. *costaricana*.
 3. Sepals and petals dark brownish purple.....*S. undulata*.
1. Floral bracts less than half the length of the pedicels.
 5. Pseudobulbs \pm cylindrical.
 6. Anther slightly notched.
 7. Flowers 5-5.4 cm in diameter.....*S. tibicinis*.
 7. Flowers more than 5.4 cm in diameter.
 8. Flowers purple.
 9. Flowers less than 6.7 cm in diameter.....*S. tibicinis* var.
exaltata.
 9. Flowers more than 6.7 cm in diameter...*S. tibicinis* var.
grandiflora.
 8. Flowers pink outside, yellow within.....*S. Rechingiana*.
 6. Anther with two prominent divergent horns.
 - 10 Sepals and petals orange.
 11. Flowers more than 7.5 cm in diameter.....*S. Brysiana*.
 11. Flowers less than 7.5 cm in diameter.....*S. Brysiana* var.
minor.
 - 10 Sepals and petals white.....*S. campecheana*.
 5. Pseudobulbs \pm conical.
 12. Flowers more than 5.5 cm in diameter.
 13. Sepals and petals rose-purple.
 14. Petals broad, \pm oblong-oblancoolate...*S. Galeottiana*.
 14. Petals narrow, \pm linear-oblancoolate.
S. Galeottiana var.
Kimballiana.
 13. Sepals and petals white.....*S. Galeottiana* var.
chionodora.
 12. Flowers less than 5.5 cm in diameter.....*S. Wendlandii*.

LIST OF SPECIES AND VARIETIES

§1. SCHOMBURGKIA.

SCHOMBURGKIA § SCHOMBURGKIA H. G. Jones in Orch. Rev. 71: 50 (1963).

Schomburgkia § *Eu-Schomburgkia* Schltr. in Orchis 7: 39 (1913).
Species typica sectionis: *S. crispa* Lindl.

This is the typical section of the genus. Schlechter (1913) named it § *Eu-Schomburgkia*; but according to the international code of botanical nomenclature, it must be named § *Schomburgkia*.

1. SCHOMBURGKIA SUPERBIENS (Lindl.) Rolfe in Orch. Rev. 25: 49 (1917).

Laelia superbiens Lindl. Bot. Reg. 26: 46 (1840).

Cattleya superbiens Beer, Prakt. Stud. 214 (1854).

Bletia superbiens Rchb. f. in Walp. Ann. 6: 418 (1862).

Range: Mexico, Guatemala, Honduras.

S. superbiens is a beautiful plant. It is the largest species of *Schomburgkia* and probably represents the connecting link between *Schomburgkia* and *Laelia*; but undoubtedly fits into *Schomburgkia* better than *Laelia* (Rolfe, 1917; Jones, 1961).

2. SCHOMBURGKIA LUEDDEMANNII Prill, in Jour. Soc. Imp. Hort. 3: 276 (1862).

Laelia Lueddemannii L. O. Wms. in Ann. Mo. Bot. Gard. 27: 282 (1940).

Schomburgkia undulata Lindl. var. *Lueddemannii* H. G. Jones in Orch. Rev. 71: 51 (1963).

Range: Panama.

This species is sometimes confused with *S. undulata* Lindl. and the Venezuelan *S. Schlechterana* H. G. Jones— from both of which it may be distinguished by its larger, differently coloured flowers (Jones, 1967a).

3. SCHOMBURGKIA LUEDDEMANNII Prill. var. COSTARICANA (Rchb.f.) H. G. Jones in Fedd. Rep. 76: 195 (1967).

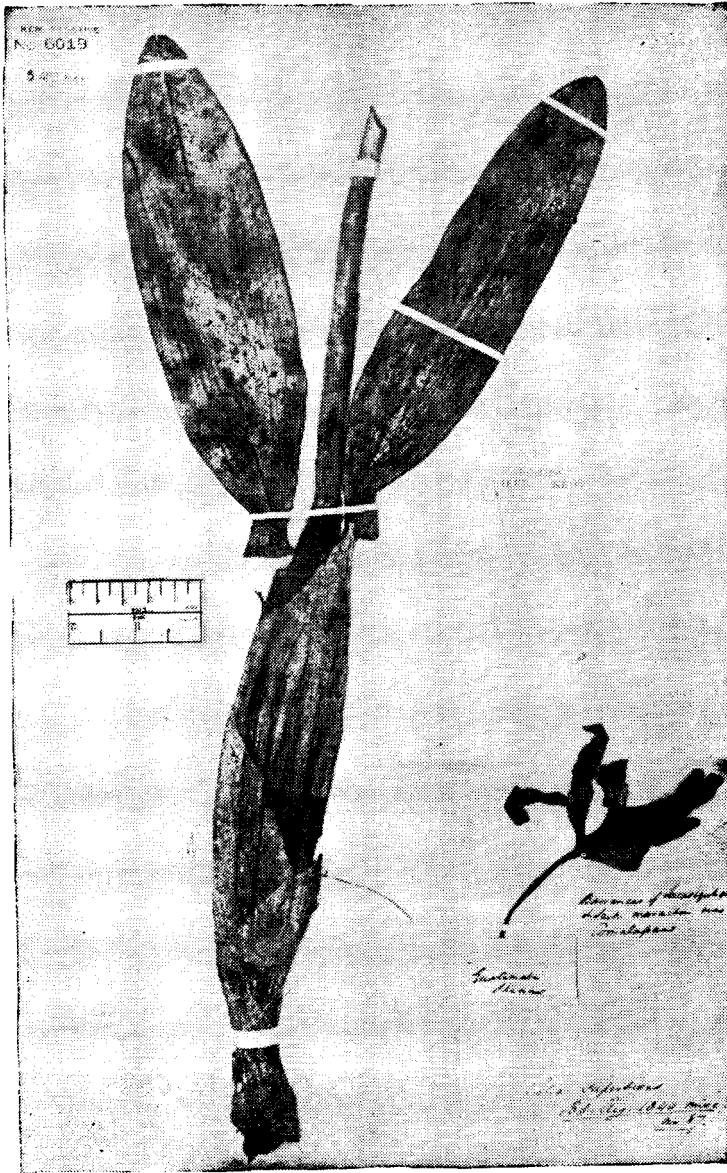
Bletia undulata Rchb.f. var. *costaricana* Rchb.f. in Xen. Orch. 2: 49 (1865).

Schomburgkia undulata Lindl. var. *costaricana* H. G. Jones in Orch. Rev. 71: 51 (1963).

Range: Costa Rica.

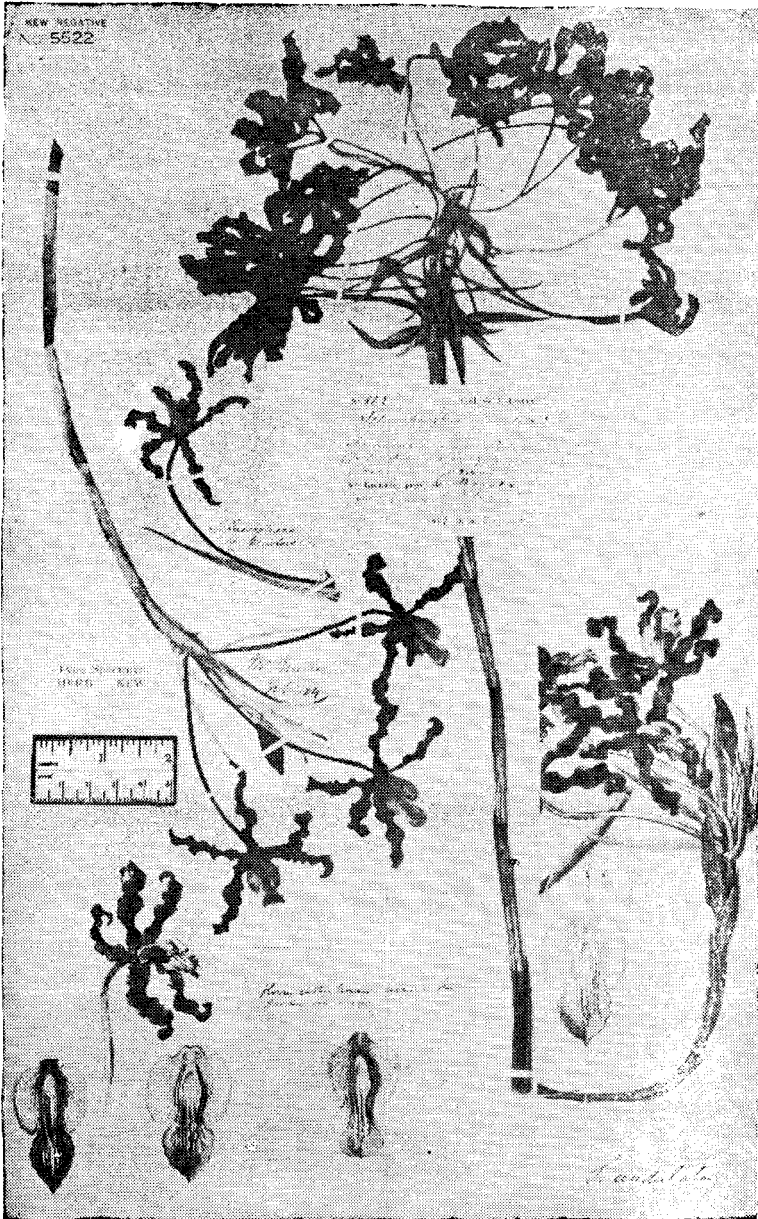
This variety from Costa Rica is distinguished from the typical phase by its smaller, less richly coloured flowers.

PLATE 1



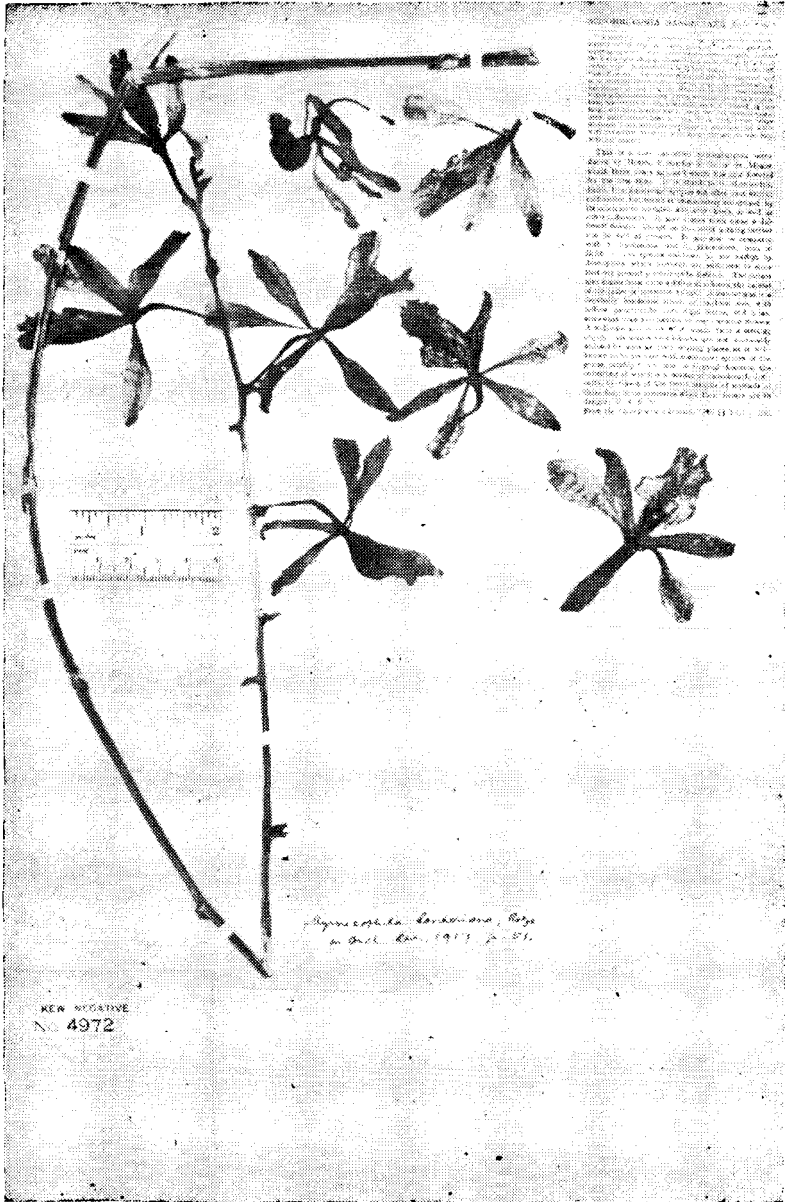
SCHOMBURGKIA SUPERBIENS (Lindl.) Rolfe
(Holotype: Kew)

PLATE 2



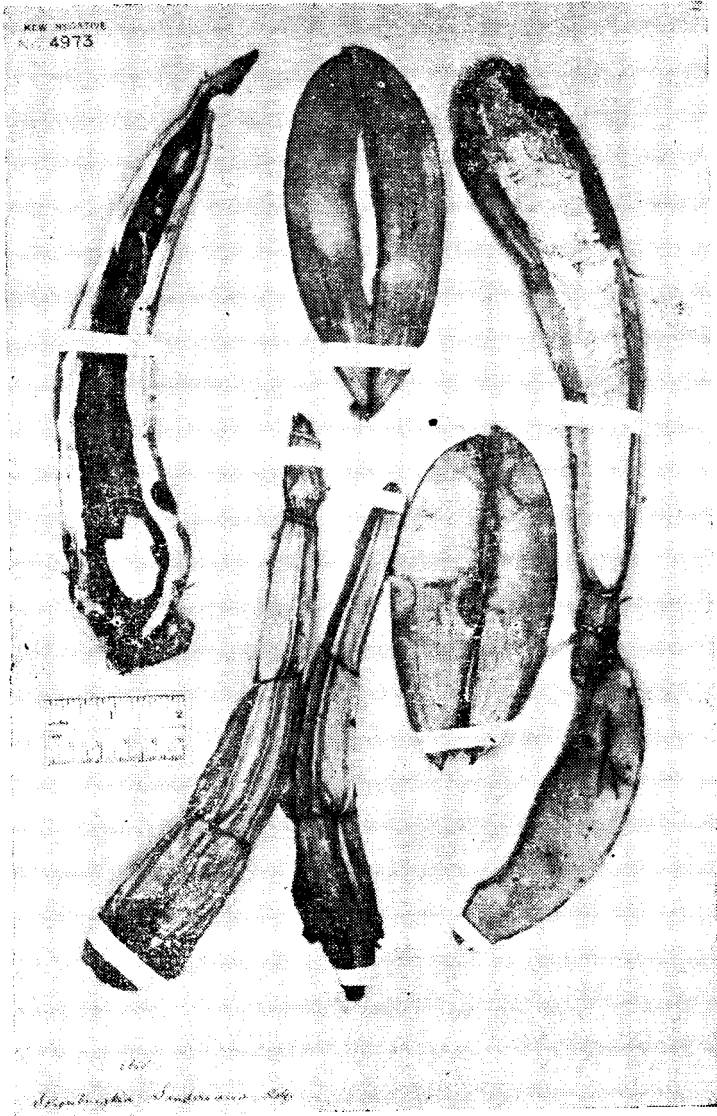
SCHOMBURGKIA UNDULATA Lindl.
(Holotype: Kew)

PLATE 3



Schomburgkia sanderiana Rolfe
(Holotype: Kew)

PLATE 4



Schomburgkia sandariana Rolfe
(Holotype: Kew)

4. SCHOMBURGKIA UNDULATA Lindl. Bot. Reg. 20: 13 (1844).
Schomburgkia violacea Paxt. Mag. Bot. 16: 126 (1845).
Cattleya undulata Beer, Prakt. Stud. 215 (1854).
Schomburgkia Quesneliana Lind. Pescatorea 1: 18 (1860).
Bletia undulata Rchb.f. in Walp. Ann. 6: 420 (1862).
Schomburgkia elata Schltr. in Fredd. Rep. 27: 138 (1924).
Laelia undulata L. O. Wms. in Darwiniana 5: 76 (1941).
 Range: Panama, Venezuela, Colombia, Trinidad.

S. undulata is the most geographically widespread of all the *Schomburgkia* species: it is the only one common to all three of the major phytogeographical areas into which the habitat of the genus may be divided—namely, Middle America, the West Indies and northern South America.

§2. CHAUNO-SCHOMBURGKIA

SCHOMBURGKIA § CHAUNO-SCHOMBURGKIA Schltr. in Orchis 7: 41 (1913).

Species typica sectionis: *S. tibicinis* Batem.

The species of this section are sometimes placed in a separate genus, *Myrmecophila* (Rolfe, 1917a).

5. SCHOMBURGKIA TIBICINIS Batem. Orch. Orch. Mex. Guat. 30 (1841).

- Epidendrum tibicinis* Batem. ex Lindl. Bot. Reg. 14: 8 (1838).
Cattleya tibicinis Beer, Prakt. Stud. 215 (1854).
Bletia tibicinis Rchb.f. in Walp. Ann. 6: 429 (1862).
Myrmecophila tibicinis Rolfe in Orch. Rev. 25: 51 (1917).
Laelia tibicinis L. O. Wms. in Darwiniana 5: 77 (1941).

Range: Mexico, British Honduras, Guatemala, Honduras, Costa Rica.

S. tibicinis appears to be quite common in southern Mexico and Central America. It used to be much cultivated in the great days of the orchid species, but is not so frequently met with nowadays.

6. SCHOMBURGKIA TIBICINIS Batem. var. EXALTATA (Krzl.) H. G. Jones in Adansonia 5: 45 (1965).

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

Range: Guatemala.

This Guatemalan variety is most easily distinguished from the *forma typica* by the very dark colour of the flowers, which is more brown than purple in some phases. The flowers are larger than the typical *S. tibicinis*, but smaller than the var. *grandiflora*.

7. SCHOMBURGKIA TIBICINIS Batem. var. GRANDIFLORA Lindl. Bot. Reg. 31: 30 (1845).

Schomburgkia grandiflora Sand. Orch. Gui. 1: 222 (1901).

Range: Honduras.

This is the most beautiful variety of all, because of its large, richly coloured flowers.

8. SCHOMBURGKIA RECHINGERANA H. G. Jones in *Webbia* 22: 227 (1967).

Range: Guatemala, Barbados, Trinidad.

This species was originally described from the West Indies; but I have since seen a specimen distributed from Guatemala under the name "*Laelia tibicinis* L. O. Wms." which belongs here. It is by no means impossible that the species may have been introduced to the West Indies from Central America.

9. SCHOMBURGKIA BRYSIANA Lem. *Jard. Fleur.* 1: 34 (1851).

Range: Guatemala, Honduras, Cuba.

S. Brysiana is closely related to the two preceding species from which it may be distinguished by its differently coloured flowers and by the form of the anther and the labellum (Jones, 1963, 1967, 1967b).

10. SCHOMBURGKIA BRYSIANA Lem. var. MINOR (Hook.f.) H. G. Jones in *Ann. Naturh. Mus. Wien* 69: 58 (1966).

Schomburgkia Thomsoniana Rehb.f. in *Gard. Chron.* 2: 38 (1887).

Bletia Thomsoniana Rehb.f. in *Gard. Chron.* 2: 38 (1887).

Schomburgkia Thomsoniana Rehb.f. var. *minor* Hook.f. in *Bot. Mag.* t. 7815 (1902).

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

Laelia Thomsoniana L. O. Wms. in *Darwiniana* 5: 77 (1941).

Schomburgkia Brysiana Lem. var. *Thomsoniana* H. G. Jones in *Amer. Orch. Soc. Bull.* 32: 8 (1963).

Range: Guatemala, Honduras, Caymans, Barbados, Trinidad.

A small-flowered variety, occasionally found in Central America, but very common in the West Indies.

11. SCHOMBURGKIA CAMPECHEANA Krzl. in *Gard. Chron.* 34: 381 (1903).

Range: Mexico, Cuba, Hispaniola.

A rather peculiar species, somewhat related to *S. Brysiana*, but easily distinguished by the very narrow, deeply undulate petals and differently coloured flowers (Jones, 1967b).

12. SCHOMBURGKIA GALEOTTIANA A. Rich. in *Ann. Sci. Nat.* 3: 23 (1845).

Schomburgkia Sanderiana Rolfe in Gard. Chron. 1: 614 (1891).

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

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

Laelia Sawyeri L. O. Wms. in Amer. Orch. Soc. Bull. 11: 329 (1943).

Range: Mexico.

S. Galeottiana is a beautiful species with large, reddish-purple flowers. The original holotype-specimen, which is distributed between the Paris and Vienna herbaria, is somewhat fragmentary; but may be supplemented by the much better-preserved type of *S. Sanderiana* (Plates 3-4).

13. SCHOMBURGKIA GALEOTTIANA A. Rich var. KIMBALLIANA (Rchb.f.) H. G. Jones in Amer. Orch. Soc. Bull. 32: 9 (1963).

Schomburgkia chionodora Rchb.f. var. *Kimballiana* Rchb.f. in Gard. Chron. 3: 136 (1888).

Range: Mexico.

This variety is distinguished from the typical form by its smaller, lighter coloured flowers and the very narrow petals.

14. SCHOMBURGKIA GALEOTTIANA A. Rich. var. CHIONODORA (Rchb.f.) H. G. Jones, comb. nov.

Schomburgkia chionodora Rchb.f. in Gard. Chron. 23: 73 (1886).

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

Range: Mexico.

Distinguished from *S. Galeottiana* by its somewhat narrower floral segments and very differently coloured flowers. I have seen only dried specimens, but judging from Reichenbach's description, it must be a very beautiful plant.

15. SCHOMBURGKIA WENDLANDI (Rchb.f.) H. G. Jones in Amer. Orch. Soc. Bull. 30: 638 (1961).

Bletia Wendlandi Rchb.f. in Walp. Ann. 6: 431 (1862).

Laelia Wendlandi Rchb.f. in Walp. Ann. 6: 431 (1862).

Range: Guatemala, Honduras, Nicaragua.

S. Wendlandi is a very distinct, small-flowered species, which appears to be without close allies. It is perhaps nearest to the South American *S. Humboldtii* Rchb.f., but may easily be distinguished by the linear-oblongate sepals and the peculiar colour of the flowers, which separates it from all the other species of this section. I have seen no Nicaraguan specimens myself, but several correspondents have sent me photographs and have assured me that the species is quite common in the lowland regions of that republic.

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