

# Three New Varieties in *Ocimum* L. (Lamiaceae)

**Ulysses P. de Albuquerque**

*Laboratório de Etnobotânica e Botânica Aplicada, Departamento de Botânica, Centro de Ciências Biológicas, Universidade Federal de Pernambuco - Av. Prof. Nelson Chaves s/n, Cidade Universitária, CEP 50670-420, Recife Pernambuco, Brasil.*

## ABSTRACT

*Three new infraspecific taxa in Ocimum are described from Northeastern Brazil, which were based in vegetative morphology, habit, stem indumentum or purple pigmentation; these were O. minimum var. religiosum Albuquerque var. nov., O. campechianum var. pubescens Albuquerque var. nov. and O. campechianum var. congestifolium Albuquerque var. nov.*

Key words: *Ocimum*, Lamiaceae, new varieties.

## INTRODUCTION

The taxonomy of the genus *Ocimum* L. is based essentially on morphological characters of the inflorescence, flowers and leaves. The indumentum has been used to distinguish infraspecific taxa and to help separate taxa which are vegetatively very similar (Paton, 1992; Albuquerque & Andrade, 1998a).

The first complete taxonomic survey of the genus in Brazil was made by Schmidt (1858) in the *Flora Brasiliensis*. A century later, Pereira (1972) presented a key to species in Brazil, but excluding one species previously recognized by Schmidt (1858) (*O. tweedianum* Benth.), and describing *O. transamazonicum* C. Pereira: *O. americanum* L. (= *O. canum* Sims), *O. gratissimum* L., *O. nudicaule* Benth., *O. selloi* Benth. (= *O. sellowii* Benth and *O. carnosum* Lk. et Otto), *O. campechianum* Mill. (= *O. micranthum* Willd.), *O. procurrans* Epling and *O. ovatum* Benth. No comprehensive taxonomic treatment of the entire genus in Brazil has appeared since that by Schmidt (1858). Albuquerque & Andrade (1998b), recognized 12 species in Brazil and analysed the infraespecific variation in some species

(Albuquerque & Andrade, 1998a; Albuquerque, 1998).

Studies of the plants in traditional markets in Recife (Pernambuco) revealed the existence of a new variety of *O. minimum* L., an species widely cultivated throughout the world. Study of the herbarium collections at the herbaria ALCB and IPA (herbarium codes following Holmgreen *et al*, 1990) yielded two new varieties of *Ocimum campechianum* Mill. These varieties are formally described and named in this paper.

## RESULTS AND DISCUSSION

***Ocimum minimum* var. *religiosum*** Albuquerque var. nov., sed caule, foliis, inflorescentia, calyce et corolla valde purpurascens differt. Typus: Brazil, Pernambuco, Recife, Arruda, 21 april 1993, Albuquerque 16 (Holotypus UFP). Herb with compact bushy habit. Stem very purple. Leaves small, usually shorter than 2.5cm long, purple. Inflorescence branched, bracts purple. Calyx purple. Corolla purple. (Fig.1)

**Vernacular name:** mangericão roxo

**Note:** *O. minimum* var. *religiosum* shows characters intermediate between those of *O.*

*minimum* L. and *O. basilicum* var. *purpuracens* Benth. It differs from the former essentially by the intensely purple colour of the whole plant and from *O. basilicum* var. *purpuracens* Benth. by dense habit and smaller leaves. The specific epithet is an allusion to the plant's use for ritual bathing in AfroBrazilian religion.

***Ocimum campechianum* var. *pubescens*** Albuquerque var. nov., indumento caulis et ramis pubescenti, pilis rectis retrorsisque in lateribus oppositis dispositis, aliis varietatibus differt. Typus: Brazil, Bahia, Tareco, Morro do Chapéu, 15 may 1957, *Lordêlo 402* (Holotypus ALCB). Stem pubescent below with straight and retrorse hairs concentrated on two opposing stem faces, ± all around above. Leaves pubescent all over or hairs concentrated on veins. (Figs. 2, 4)

**Vernacular name:** alfavaco grande.

**Other material:** Brazil, Bahia, Irecê, Alto da Gabriela, 10 may 1984, *Fotius 3847* (IPA).

***Ocimum campechianum* var. *congestifolium*** Albuquerque var. nov., foliis in fasciculis congestis aliis varietatibus differt. Typus: Brazil, Bahia, Irecê, Lagoa dos Patos, 20 aug. 1980, *Bastos 15* (Holotypus ALCB). Stem glabrous below, pubescent on nodes and branches or not with retrorse and straight hairs. Leaves in denses fascicles, pubescent or subglabrous with hairs concentrated on veins. (Figs. 3,4)

**Vernacular name:** alfavaca-de-cobra, alfavaca.

**Note:** *O. campechianum* var. *pubescens* differs from the type variety by the pubescent indumentum of the stem. Var. *congestifolium* is distinguished by the leaves arranged in dense fascicles. Table 1 shows the main differences between the varieties of this species.

**Table 1.** Differences between varieties of *O. campechianum* Mill.

TAXA <i>O. campechianum</i>	LEAF INDUMENTUM	STEM INDUMENTUM (below inflorescence)	LEAF ARRANGEMENT
var. <i>campechianum</i>	Subglabrous	glabrous or subglabrous with scattered short adpressed and retrorse hairs	dispersed
var. <i>pubescens</i>	Pubescent	pubescent with straight and retrorse hairs	dispersed
var. <i>congestifolium</i>	pubescent or subglabrous	Glabrous below, sometimes with retrorse and straight hairs on nodes and branches.	in dense fascicles



UNIVERSIDADE FEDERAL DE PERNAMBUCO  
Departamento de Botânica  
Herbário UFP

*Ocimum minimum* L. var. *religiosum*  
Albuquerque var. nov.  
(HOLOTIPO)  
Det. U.F.P. de Albuquerque, 2006-06



UNIVERSIDADE FEDERAL DE PERNAMBUCO  
DEPARTAMENTO DE BOTÂNICA  
HERBÁRIO UFP

N.º 08755

Fam.: Labiatae

Sp.: *Ocimum basilicum* L.

Nome vulgar: Mangueirão-rece

Proc.: PE - Recife, Arruda

Col.: Ulysses F. Albuquerque. 016  
21/04/93

Det.: Ulysses F. de Albuquerque  
22/04/93

Obs.: Planta aromática, coloração  
roxa. Cultivada. Espregada em cultos  
Afro-brasileiros.

Fig. 1. *Ocimum minimum* var. *religiosum* Albuquerque var. nov. (Holotypus UFP).



**Fig. 2.** *Ocimum campechianum* var. *pubescens* Albuquerque var. nov. (Holotypus ALCB).

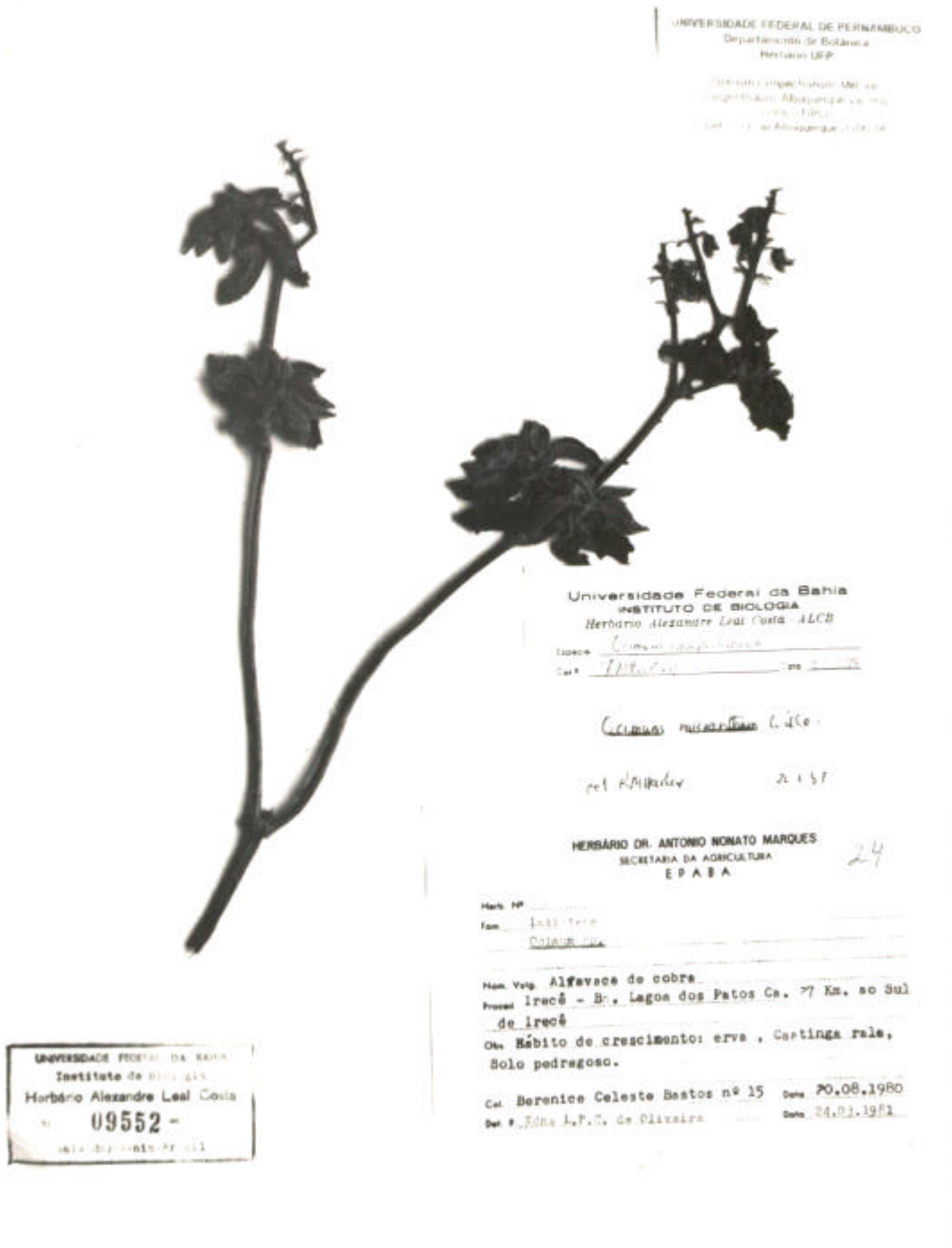


Fig. 3. *Ocimum campechianum* var. *congestifolium* Albuquerque var. nov. (Holotypus ALCB).





**Fig. 4.** *Ocimum campechianum* Mill. A, habit; Leaf (B) and stem (B') indument of the var. *campechianum*; Leaf (C) and stem (C') indument of the var. *pubescens* (Drawn adapted from Albuquerque & Andrade, 1998a); D, Leaf arrangement of the var. *congestifolium*.

## ACKNOWLEDGEMENTS

I am indebted to Dr. Simon Mayo, Royal Botanic Gardens, Kew, for checking the Latin diagnosis and for translating the English text.

## RESUMO

São descritas três novas variedades no gênero *Ocimum*, encontradas no Nordeste do Brasil, com base na morfologia vegetativa, hábito, indumento do caule ou pigmentação; são elas: *O. minimum* var. *religiosum* Albuquerque var. nov., *O. campechianum* var. *pubescens* Albuquerque var. nov. e *O. campechianum* var. *congestifolium* Albuquerque var. nov.

## REFERENCES

Albuquerque, U.P. & Andrade, L.H.C. (1998a). El género *Ocimum* L. (Lamiaceae) en el Nordeste del Brasil. *Anales Jard. Bot. Madrid*, **56**, 43-64.

- Albuquerque, U.P. & Andrade, L.H.C. (1998b). Etnobotánica del género *Ocimum* L. (Lamiaceae) en las comunidades afrobrasileñas. *Anales Jard. Bot. Madrid*, **56**, 107-118.
- Albuquerque, U.P. (1998). Morphological and taxonomical notes on *Ocimum transamazonicum* C. Pereira. *Naturalia*, **23**, in press.
- Holmgreen, P.K.; Holmgreen, N.H. & Danett, L.C. (1990) *Index herbariorum - part I: the herbaria of the world*. New York Botanical Garden, New York, pp. 693.
- Paton, A. (1992) A synopsis of *Ocimum* L. (Labiatae) in Africa. *Kew Bull.*, **47**, 403-35.
- Pereira, C. (1972). Contribuição ao conhecimento da família Labiatae. I. *Bradea*, **1**, 125-28.
- Schmidt, J. A. (1858). Labiatae. In *Flora Brasiliensis*. Munchen, **8**, pp.65-226.

Received: September 23, 1997  
Revised: November 07, 1997  
Accepted: December 23, 1998