## LECTOTYPIFICATION OF MALVA ANGUSTIFOLIA CAV.

# for JOHN C. LA DUKE\* & PAUL A. FRYXELL\*\*

#### Resumen

LA DUKE, J. C. & P. A. FRYXELL (1988). Lectotipificación de Malva angustifolia Cav. Anales Jard. Bot. Madrid 45(1): 159-163 (en inglés).

Malva angustifolia Cav. fue nombre publicado sin referírselo a tipo ninguno. Kearney (1935) indica la existencia de un tipo en Madrid, pero sin darnos detalles del ejemplar, si es que lo vio, ni tipificar en uno de los previsiblemente varios ejemplares. Por el hecho de que residía en París Cavanilles cuando publicó su binomen, mientras que Kearney habla de un tipo en Madrid, hubimos de replantearnos todo el problema. Se presenta aquí una discusión de los ejemplares disponibles y se señala lectotipo madrileño.

Palabras clave: Sphaeralcea, Malva, nomenclatura, Cavanilles.

## Abstract

LA DUKE, J. C. & P. A. FRYXELL (1988). Lectotypification of Malva angustifolia Cav. Anales Jard. Bot. Madrid 45(1): 159-163.

Malva angustifolia Cav. was published without the explicit citation of a type. Kearney (1935) refers to a type at Madrid but does not indicate details of this specimen, if he ever saw a specimen, or which particular specimen is the type. Owing to the fact that Cavanilles was in Paris at the time of publication, whereas Kearney indicated a type at Madrid, we sought to resolve this problem. Discussion of the available specimens and choice of a lectotype is provided.

Key words: Sphaeralcea, Malva, nomenclature, Cavanilles.

CAVANILLES (1785) described and illustrated Malva angustifolia Cav. (fig. 1) without explicit designation of a type. Following the description, Cavanilles states: "Vidi S. communicatam a D. Palau, cultam in R. h. Matritensis." ("I have seen it in a dried state communicated by Mr. Palau, cultivated at the Royal garden in Madrid.") The growth of material at Madrid and its transfer to Paris was reaffirmed by ÁLVAREZ LOPEZ (1946). Antonio Palau was a Professor of Botany at the Madrid Botanical Garden during this time. The communication of a specimen from Palau for the description is referred to again by Cavanilles in 1791. He apparently grew material in the gardens at Paris, possibly from seed, because he refers to plants of M. angustifolia growing the following summer and not appearing like those he described in 1786. Two specimens are present in the Paris (P-LA) collec-

<sup>\*</sup> Department of Biology, University of North Dakota. Grand Forks, ND, 58202. U.S.A.

<sup>\*\*</sup> United States Department of Agriculture, Agricultural Research Service, and Texas A & M University, College Station, TX. 77843 U.S.A.



Fig. 1.—Copy of plate 20 #3 of M. angustifolia from Cavanilles (1785).

tion (fig. 2). Both specimens are *M. angustifolia* but neither can be attributed to Cavanilles. The specimen in figure 2a is labeled by a person unknown to us, but the handwriting is not that of either Cavanilles or Lamarck. The specimen in figure 2b has been labeled by Lamarck and has referenced the publication of *M. angustifolia*. We have no indication that Cavanilles saw either of these specimens before he described *M. angustifolia*.

Kearney (1935) indicated a type at Madrid, but did not elaborate about the specimen. He indicated that the type was collected by Palau. Upon inquiry to

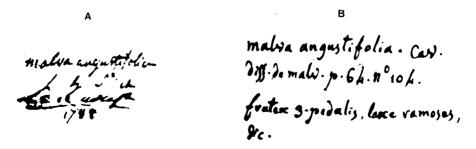


Fig. 2.—Labels of M. angustifolia specimens from P-LA. (see text for further information).



Fig. 3.—Specimen of M. angustifolia from MA. Lectotype.



Fig. 4.—Specimen of M. angustifolia with handwriting by Cavanilles.

Antonio M. Regueiro, the Keeper of the Herbarium at Madrid, concerning Palau or Cavanilles collections of this species, we received information on six specimens that were possible choices as the type. Three of these were collections by Luis Née and were obtained after *M. angustifolia* was described, and thus may be eliminated from consideration. A fourth specimen is labeled "M. angustifolia Cav ic. Ex H. M. Aug 1799" in the handwriting of J. D. Rodríguez (A. M. Regueiro, personal communication). Since the specimen is dated thirteen years after the date of publication and bears no indication of Cavanilles having seen it, this specimen must also be disregarded.

The remaining two specimens (figs. 3, 4) present an interesting problem in lectotypification. The specimen in figure 3 has two labels. The rectangular, printed label was written by C. Vicioso (A. M. Regueiro, personal communication). In addition to the plant name, C. Vicioso indicates that the other label was written by J. D. Rodríguez. Antonio Regueiro (personal communication) disagrees and has determined the writing to be that of A. Palau. In comparing the writing on the second label with authentic handwriting samples of A. Palau, we conclude that handwriting of the word "Malva" is that of Palau, while the rest of the label seems to have been written by another hand. Cavanilles handwriting does not appear on this specimen. The specimen in figure 4 has a number of typewritten labels and one handwritten label. The handwritten label is of interest in that it is in the hand of Cavanilles.

Since in the original description, Cavanilles cited a specimen received from Palau, and since one specimen bears the label "Malva" in Palau's hand (fig. 3, MA 266267), we believe this specimen to be the most logical to designate as lectotype. The specimen in fig. 4 was probably sampled in a subsequent season from the same plant as that in fig. 3, grown in the Madrid Botanical Garden, and was presumably labelled by Cavanilles after his return to Madrid in 1789. This specimen (fig. 4) and one at BM should be considered isolectotypes.

#### ACKNOWLEDGEMENTS

We would like to thank the following people for their contributions to this paper: Dr. Robert Kiger for handwriting samples, Dr. Antonio Regueiro for his help in obtaining specimens and information from MA, the National Science Foundation (U.S.A.) for financial support through DEB 81-21906 to JCL.

### **BIBLIOGRAPHIC REFERENCES**

ÁLVAREZ LÓPEZ, E. (1946). Noticia acerca de las plantas ultramarinas estudiadas por Cavanilles, y en particular de las recolectadas por Luis Née. Rev. Indias 7: 503-540.

CAVANILLES, A. J. (1785). Mondadelphiae classis dissertationes decem. Dissertatio botanica de Sida, et de quibusdam plantis quae cum illa affinitatem Habent. Paris.

CAVANILLES, A. J. (1791). Icones et descriptiones plantarum, quae aut sponte in hispania crescunt aut in hortis hospitantur. Vol. 1(2). Madrid.

KEARNEY, T. H. (1935). The North American species of Sphaeralcea subgenus Eusphaeralcea. *Univ. Calif. Publ. Bot.* 19: 1-128.