



Lectotypification of the name *Ximenesia encelioides*, basionym of *Verbesina encelioides* (Asteraceae: Heliantheae: Verbesininae)

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During the preparation of the treatment for the genus *Verbesina* Linnaeus (1753: 901) for the *Flora iberica* (Castroviejo 1986–2015) and work towards a preliminary checklist of the Compositae of Bolivia (Hind 2011), the typification of *Verbesina encelioides* (Cavanilles 1793: 60) Gray (1876: 350) was reviewed. It is a species with a native distribution apparently along the Gulf coast plains of Texas and Mexico, where it grows on disturbed soils, field margins, roadsides and cultivated areas. Nowadays, *V. encelioides* is widely distributed as a pantropic weed, behaves as a naturalised plant especially in temperate regions, as well as sometimes cultivated as a half-hardy annual (Hind 2011).

Cavanilles (1793: 60) described *Ximenesia*, including the single species *X. encelioides* Cavanilles (1793: 60), and later Bentham (1873) treated the genus as a synonym of *Verbesina*, although without mentioning either of the inferred two species. The combination *Verbesina encelioides* was effected by Gray (1876), who incorrectly indicated the authority of this combination as ‘Bentham & Hooker’; no such combination was proposed by Bentham & Hooker f. (see Bentham 1873). Later, Gray (1888) and Robinson & Greeman (1899) recognised three and 12 sections respectively within *Verbesina*, including *V. sect. Ximenesia* (Cavanilles 1793: 60) Gray (1883: 14) for *V. encelioides*. None of these authors mentioned herbarium vouchers which might be considered as type material. McVaugh (1984) stated “the type was a plant, said to have come from Mexico, that flowered in the Royal Botanic Garden, Madrid, in November 1792 or before”, but no reference to any specimen was made. Later, Garilletei (1993) remarked on the existence of one voucher of *X. encelioides* at the herbarium of the Real Jardín Botánico de Madrid (MA 476508, with two sheets), which might be relevant when the typification of this name is considered, since part of this plant material would correspond to the collection indicated in the protologue. However, Garilletei (1993) selected neither of these two sheets as the lectotype. Hence, the name *Ximenesia encelioides* has not yet been typified; this paper proposes the designation of a lectotype for this name based on the protologue and examination of the available original material.

Typification

In the protologue of *Ximenesia encelioides* Cavanilles (1793: 60) provided a morphological description of the species based on its leaves, inflorescences, flowers and seeds, aspects of which can be also seen in the accompanying plate (Tab. 178). In addition, he also mentioned the locality: ‘Habitat in Mexico, unde introducta in Regium hortum Matritensem. Floruit prima vice mense Novembri: videtur perennis’, but, in a manner typical of that period, did not mention the presence of any herbarium material.

Original material of most of the taxa described by Cavanilles is kept at MA (Real Jardín Botánico de Madrid) in the separate collection ‘Typi cavanillesianum’ (<http://herbario.rjb.csic.es/>). Four herbarium sheets of *Verbesina encelioides* from this collection are present (barcodes MA 476508, MA 476508-2, MA 476509, MA 476510), and none of them is marked as type material. The sheets MA 476509 and MA 476510 are not relevant for typification purposes since the date of the former corresponds to 1801, later than the original publication in 1793, whereas the latter came from Argentina and not from Mexico. Moreover, none of these two includes Cavanilles’ handwritten labels. The sheets MA 476508 and MA 476508-2 are only those relevant to the typification of the name *Ximenesia encelioides*. Firstly, it is important to comment on the confusion that exists concerning the herbarium labels of MA 476508 and MA 476508-2, and the clarification required. During previous imaging both sheets were originally provided with the same herbarium number (MA 476508) without specifying or distinguishing either sheet. Garilletei (1993) differentiated them as MA 476508—first sheet and second sheet, respectively, giving specific data about the original labels and the plant material. Similarly Hind (2011) described these two