

HISTORY AND CLARIFICATION OF THE NAME
CLITORIA SERICEA (LEGUMINOSAE)

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ABSTRACT

A taxonomic history is provided of a Mexican species originally described as *Clitoria sericea* S. Wats. (Leguminosae) that is recognized currently as *Tephrosia watsoniana* (Standl.) Macbr. Notes are provided on the typification and synonymy of the species.

RESUMEN

El historial de taxonómico de una especie Mexicana como *Clitoria sericea* S. Wats. (Leguminosae), acrualmente conocida como *Tephrosia watsoniana* (Standl.) Macbr. La tipificación y sinonimia de la especie tambien se adjunta.

Herbarium specimens sent on loan for the Flora Mesoamerica Project have included a number of Mexican sheets labeled as *Clitoria sericea* S. Wats. Inquiries received from Mexican botanists have raised the question of (1) typification, (2) renaming the species since *C. sericea* is an invalid name, (3) affinities of this species within the genus *Clitoria* L., and (4) transferring this species to the genus *Centrosema* (DC.) Benth. Wood (1949) cited *C. sericea* in synonymy with the name *Tephrosia watsoniana* (Standl.) Macbr. Other names were included in synonymy, but no discussion was provided on typification nor the selection of the name. Several Mexican botanists have encouraged me to write an article providing documentation on the clarification of *C. sericea*. The objective of this article is to provide a taxonomic history of the species originally described as *C. sericea* and notes on the typification of the names.

HISTORY OF THE SPECIES

Sereno Watson (1887) described a new species from Mexico collected by Edward Palmer as "*Clitoria (?) sericea*." A diagnosis of the species was described in English. The species was described from a fruiting specimen with flowers cited as "flowers unknown." One collection of Edward Palmer was cited as "Rio Blanco, on grassy hillsides; August (321)." Examination of *Palmer 321* collected from Jalisco, Mexico, in August 1886, led me to the conclusion that this species is not a *Clitoria* nor a *Centrosema*, and that its assignment to *Tephrosia* Pers. is correct.

Robinson (1894) described the flowers of *Clitoria sericea* based upon a collection of C.G. Pringle from Jalisco, Mexico, cited as "rocky hills near Guadalajara, June and July, 1893 (4449)." He commented "an anomalous plant with the calyx rather of *Centrosema*." This is the reference that has lead some current botanists to annotate occasional sheets of *Clitoria sericea* to *Centrosema sericea*, a name that is *nomina in schedula*. Since the name is unpublished and appears only on herbarium sheets as an annotation, inquiries have been raised regarding publishing this new combination.

Rose (1899) cited the name *Clitoria sericea* as a doubtful species, one to be excluded from *Clitoria*, and noted it "may be a *Cracca* (*Tephrosia*)." Rose (1909) transferred the species to the genus *Cracca* L. as *Cracca sericea* (Wats.) Rose and included the basionym *Clitoria sericea* in synonymy.

Standley (1922) cited Watson (1887) and Rose (1909), noted that Rose's name produced a homonym of *Cracca sericea* Gray published in 1883. Therefore, Standley proposed the new name of *Cracca watsoniana* Standl. as the correct name for this species.

Macbride (1925) transferred the species to the genus *Tephrosia* as *Tephrosia watsoniana* (Standl.) Macbr. citing Watson (1887) and

Standley (1922). *Tephrosia sericea* Bak. in Oliver was published in 1871 and is a valid species. Thus, Macbride used Standley's name as the basionym, not Watson's name.

Standley (1929) transferred the species to *Tephrosia* as *Tephrosia watsoniana* (Standl.) Standl. citing Watson (1887) and Standley (1922). Standley apparently was unaware of Macbride's publication, but reached the same conclusion as to the assignment to the genus *Tephrosia*. However, he cited the name *Tephrosia sericea* DC. published in 1825 as the basionym, not Baker's name. Decandolle's name referred to a different species.

CORRECT NAME FOR THE SPECIES

The use of a question mark (?) and the English diagnosis by Watson (1887) has raised the question of valid publication. Watson (1887) was not required to use a Latin diagnosis as this rule wasn't enacted until 1905 by the Vienna Code. Article 34.1a noted that the conditions of invalid publication of names "does not apply to names published with a question mark or other indication of taxonomic doubt, yet published and accepted by the author" (Greuter et al. 1994). Thus, the name *Clitoria sericea* was validly published.

Standley (1922), Macbride (1925), Standley (1929) and Wood (1949) all agreed that the species described as *Clitoria sericea* belongs to the genus *Cracca* L./*Tephrosia* Pers. The name *Cracca* Benth. is conserved over *Cracca* L. *Cracca* L. is equivalent to *Tephrosia* Pers. and based upon the same nomenclatural type (Greuter et al. 1988). Thus, *Tephrosia* is the correct generic name as used by Macbride (1925), Standley (1929) and Wood (1949).

Watson's name has priority for the species, but must be rejected as the basionym as transfer of this name to *Tephrosia* created the homonym *T. sericea* as noted by Macbride (1925), Standley (1929) and Wood (1949). The name published by Standley (1922) now has

priority and becomes the basionym for the correct name of the species, *Tephrosia watsoniana* (Standl.) Macbride.

TYPIFICATION

All of the names cited above in the history of this species are based upon the same nomenclatural type. Watson (1887) cited one collection of Edward Palmer, but did not designate the place of deposit. Wood (1949) reported the type collection as "*Palmer 321* (GH-TYPE; MEXU,NY)." Additional specimens of this collection are now known. Is the GH specimen the holotype, or was lectotypification needed?

Fantz (1993) discussed two interpretations by taxonomists of typification as defined by the Code (Greuter et al. 1994). Some taxonomists would argue that the word "type" indicates that the GH specimen is the holotype and all other specimens of *Palmer 321* are designated as isotypes. Others would argue that all specimens of *Palmer 321* are syntypes, as the original author, Sereno Watson (1887), did not designate a nomenclatural type; the nomenclatural type was designated by a later author, Carroll Wood (1949). I agree with the second interpretation (discussion and justification with the Code in Fantz 1993). Therefore, the GH specimen is treated as a lectotype.

The citation for the species described as *Clitoria sericea* is as follows:

Tephrosia watsoniana (Standl.) Macbride, Field. Mus. Pub. Bot. 4 (4):87. 1925; *Clitoria* (?) *sericea* S. Wats., Proc. Amer. Acad. 22:407. 1887; *Cracca sericea* (S. Wats.) Rose, Contr. U.S. Nat. Herb. 12(7):271. 1909; *Cracca watsoniana* Standl., Contr. U.S. Nat. Herb. 23(2):472. 1922; *Tephrosia watsoniana* (Standl.) Standl., Field Mus. Pub. Bot. 4(8):214. 1929. **LECTOTYPE:** MEXICO. Jalisco: On grassy hillsides, Rio Blanco [ca 10 mi NW of Guadalajara], Aug 1886, *Edward Palmer 321* (GH - designated by Wood, Rhodora 51:351. 1949). **ISOLECTOTYPES:** BM,G-2 sheets,MO 1888114,MEXU,NY,PH, US 49885,US 1364023.

Additional collections I examined that were not cited by Wood (1949) include: MEXICO. Jalisco: Guadalajara, 1902, *Arsene s.n.* (E); rocky hills near Guadalajara, Jun-Jul 1893, *Pringle 4449* (BM,E, F,G-4 sheets,M,MIN,MO,PH, S, UC); granitic hills near Guadalajara, 5500 ft, 10 Jul 1902, *Pringle 9736* (CM,GH,MICH,MO,US).

ACKNOWLEDGMENTS

I am grateful to James W. Hardin, Department of Botany, for reviewing the original manuscript and to Douglas Marin for assistance with the abstract written in Spanish.

LITERATURE CITED

FANTZ, P.R. 1993. Notes on *Clitoria* (Leguminosae) in Southeast Asia. *Novon* 3:352-355.

GREUTER, W., F.R. BARRIE, H.M. BURDET, W.G. CHALONER, V. DEMOULIN, D.L. HAWKSWORTH, P.M. JØRGENSEN, D.H. NICOLSON, P.C. SILVA, P. TREHANE, and J. MCNEILL. 1994. International Code of Botanic Nomenclature. *Regnum Veg.* 131.

MACBRIDE, J.F. 1925. South American Plants. *Field Mus. Nat. Hist. Bot. Ser.* 4(4):79-83.

ROBINSON, B.L. 1894. II. Descriptions of new and hitherto imperfectly known plants collected in Mexico by C.G. Pringle in 1892 and 1893. *Proc. Amer. Acad. Arts.* 29(1984):273-330.

ROSE, J.N. 1899. Notes on the Mexican species of *Clitoria*. *Contr. U.S. Nat. Herb.* 5(4):168-170.

ROSE, J.N. 1909. New species and new combinations under *Cracca*. *Contr. U.S. Nat. Herb.* 12(7):269-271.

STANDLEY, P.C. 1922. Trees and shrubs of Mexico. *Contr. U.S. Nat. Herb.* 23(2):171-515.

STANDLEY, P.C. 1929. Studies of American Plants - I. *Field Mus. Nat. Hist. Bot. Ser.* 4(8):197-299.

WATSON, S. 1887. Lists of plants collected by Dr. Edward Palmer in the state of Jalisco, Mexico in 1886. *Proc. Amer. Acad. Arts.* 22:396-481.

WOOD, Jr., C.E. 1949. The American barbistyled species of *Tephrosia* (Leguminosae). *Rhodora* 51:233-363.