

PREPRINT

Posted on 02/10/2020

DOI: <https://doi.org/10.3897/arphapreprints.e59165>

Thesium longiperianthium (Santalaceae), a new replacement name for *T. brevibracteatum*

P.C.Tam

Xue Hong Xu, Wenjun Li, Khabibullo F Shomurodov, Ozodbek Abduraimov,
Shukui Niu

Not peer-reviewed, not copy-edited manuscript submitted to:

Biodiversity Data Journal

Disclaimer on biological nomenclature and use of preprints

The preprints are preliminary versions of works accessible electronically in advance of publication of the final version. They are not issued for purposes of botanical, mycological or zoological nomenclature and **are not effectively/validly published in the meaning of the Codes**. Therefore, nomenclatural novelties (new names) or other nomenclatural acts (designations of type, choices of priority between names, choices between orthographic variants, or choices of gender of names) **should NOT be posted in preprints**. The following provisions in the Codes of Nomenclature define their status:

International Code of Nomenclature for algae, fungi, and plants (ICNafp)

Article 30.2: "An electronic publication is not effectively published if there is evidence within or associated with the publication that its content is merely preliminary and was, or is to be, replaced by content that the publisher considers final, in which case only the version with that final content is effectively published." In order to be validly published, a nomenclatural novelty must be effectively published (Art. 32.1(a)); in order to take effect, other nomenclatural acts must be effectively published (Art. 7.10, 11.5, 53.5, 61.3, and 62.3).

International Code of Zoological Nomenclature (ICZN)

Article: 21.8.3: "Some works are accessible online in preliminary versions before the publication date of the final version. Such advance electronic access does not advance the date of publication of a work, as preliminary versions are not published (Article 9.9)".

Thesium longiperianthium (Santalaceae), a new replacement name for *T. brevibracteatum*

P.C.Tam

Xuehong Xu[‡], Wenjun Li^{§,¶}, Khabibullo F Shomurodov[#], Ozodbek Abduraimov[#], Shukui Niu[‡]

[‡] School of Ecology and Nature Conservation, Beijing Forestry University, Beijing, China

[§] State Key Laboratory of Desert and Oasis Ecology, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Urumqi, China

[|] The Specimen Museum of Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Urumqi, China

[¶] University of Chinese Academy of Sciences, Beijing, China

[#] Institute of Botany, Academy of Sciences of the Republic of Uzbekistan, Tashkent, Uzbekistan

Corresponding author: Wenjun Li (liwenjunao@ms.xjb.ac.cn)

Abstract

Background

Thesium brevibracteatum P.C.Tam is a later homonym of *T. brevibracteatum* G.P.Sumnevich.

New information

We propose the new name *T. longiperianthium* for *T. brevibracteatum* P.C.Tam.

Keywords

Thesium brevibracteatum, homonym, replacement name, Inner Mongolia,

Introduction

Thesium brevibracteatum P.C.Tam was described based on the specimen *Chiu L.C. 5128* collected from Inner Mongolia, China (Tam 1981). It is a sub-fruticose herb up to 30 cm tall, and grows on sunny side of dunes and hills, and drought grassland (Tam 1981, Tam 1988, Xia and Gilbert 2003, Zhao et al. 2020). In the protologue, the author indicated that *T. brevibracteatum* is similar to *T. longifolium* N.S.Turczaninow (Sumnevich 1940), but distinguishes from the latter by the short bracts and long persistent perianth. As an

endemic species, this species is distributed in Xilin Gol Meng, Horqin Right Front Banner, and Hulun Buir, Inner Mongoli, China (Imzab 1990, Zhao et al. 2020).

The name *Thesium brevibracteatum* G.P.Sumneovich is validly published and described on the type (*Korotkova E.E. et Titov V.S. 1502*) collected from Uzbekistan (Sumneovich 1940). This species is a perennial soft-stemmed herb up to 25 cm tall. As indicated in protologue, this species is close to *T. ramosissimum* E.G.Bobrov (Bobrov 1936) and *T. ramosum* F.G.Hayne (Hayne 1800). It differs from the first species by a very short peduncle - about 1 mm long (not 2-3 mm long), smaller nuts, non-woody roots, low and poorly branched stems in the inflorescence area (not high to 60 cm and branched from the base), and from *T. ramosum* in thin, woody roots and stems, branched in the inflorescence area, leaves with a single vein, and shorter lateral bracts equal to half the length of the flower. As noted by Goloskokov (Goloskokov 1960), *T. brevibracteatum* G.P.Sumneovich is probably a southern, ecologically isolated race of *T. ramosum* F.G.Hayne. The common distribution of the *T. brevibracteatum* G.P.Sumneovich is Central Asia (Western Tian Shan). It grows on the northern slopes in the upper belt of mountains on fine-grained slopes in woody and shrubby thickets (Sumneovich 1953). In addition to the type locality (Tashkent Alatau), this species was found in the Karatau mountains, Western Tian Shan (Kazakhstan) (Goloskokov 1960).

During the preparation of the checklist of vascular plant of Central Asia, we realized that the name *T. brevibracteatum* P.C.Tam is a later homonym of *T. brevibracteatum* G.P.Sumneovich (Art 53.1 of ICN) (Turland et al. 2018). After checking the protologue and type specimens (Fig. 1), we are sure that those two species are very different in long of peduncle and nut, such as the species *T. brevibracteatum* G.P.Sumneovich show shorter peduncle and smaller nut. In the protologue, the long persistent perianth is a key characteristic for *T. brevibracteatum* P.C.Tam. After checking in IPNI (<https://www.ipni.org>), the epithet "longiperianthium" was not used in the genus *Thesium* previously. Thus, we propose the new name *T. longiperianthium* for *T. brevibracteatum* P.C.Tam.

Taxon treatment

***Thesium brevibracteatum* Tam, P.C., nom. nov. \equiv *Thesium longiperianthium* X. Hong Xu & W. Jun Li in Tam, P.C. (1981) New materials on Santalaceae. Bulletin of Botanical Research 1: 70-77.**

Description

***Thesium longiperianthium* X. Hong Xu & W. Jun Li, nom. nov.**

Replaced name:—*Thesium brevibracteatum* P.C.Tam (1981: 73), *nom. illeg.*, non G.P.Sumneovich (1940: 32).

Type:—CHINA. Inner Mongolia: Xilin Gol Meng, Yikenao, 7 Sep. 1965, *Chiu L.C. 5128* (Holotype SHM 0009016!).

Acknowledgements

We are grateful to the National Specimen Information Infrastructure (NSII) for allowing us to check the specimens online. This work was supported by the Youth Innovation Promotion Association Foundation of the Chinese Academy of Sciences (No.2019429) and Research Center for Ecology and Environment of Central Asia (RCEECA-2018-003).

References

- Bobrov EG (1936) New species of the genus *Thesium* L. from Central Asia. Acta Instituti Botanici Academiae Scientiarum URSS 2: 121-122.
- Goloskokov VP (1960) Santalaceae. In: Pavlov NV (Ed.) Flora of Kazakhstan. 3. KazSSR Academy of Science Press, Alma-Ata, 83-88 pp.
- Hayne FG (1800) Termini botanici iconibus illustrati, oder botanische Kunstsprache durch Abbildungen erläutert. Journal für die Botanik 3: 30-32.
- Imzab (1990) Santalaceae. In: Ma YQ (Ed.) Flora Intramongolica (Editio Secunda). 2. Typis Intramongolicae Popularis, Huhhot, 134-140 pp.
- Sumnevich GP (1940) The new species of flora of Uzbekistan. Botanical Materials of the Botanical Institute's Herbarium of Uzbekistan Branch of the USSR Academy of Sciences 2: 32-33.
- Sumnevich GP (1953) Santalaceae. In: Schreder RR, Vvedenskiy AI (Eds) Flora Uzbekistanica. 2. UzSSR Academy of Science Press, Tashkent, 96-97 pp.
- Tam PC (1981) New materials on Santalaceae. Bulletin of Botanical Research 1: 70-77.
- Tam PC (1988) Santalaceae. In: Kiu HS, Ling YY (Eds) Flora Reipublicae Popularis Sinicae. 24. Science Press, Beijing, 52-86 pp.
- Turland NJ, Wiersema JH, Barrie FR, Greuter W, Hawksworth DL, Herendeen PS, et al. (Eds) (2018) International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. Regnum Vegetabile 159. Koeltz Botanical Books, Glashütten, 254 pp. <https://doi.org/10.12705/Code.2018>
- Xia NH, Gilbert MG (2003) Santalaceae. In: Wu ZY, Raven PH, Hong DY (Eds) Flora of China. 5. Science Press, Beijing, 208-21 pp.
- Zhao YZ, Zhao LQ, Cao R (2020) Santalaceae. In: Zhao YZ, Zhao LQ, Cao R (Eds) Flora Intramongolica (Editio Tertia). 1. Typis Intramongolicae Popularis, Huhhot, 412-41 pp.



Figure 1.

The holotype of *Thesium brevibracteatum* P.C.Tam (1981: 73) (A) and *T. brevibracteatum* Sumnevich (1940: 32) (B)