



## Nota Científica / Short Communication: Lectotypification and a new combination in *Cynophalla* (Capparaceae)

*Lectotipificaciones y una nueva combinación en Cynophalla*

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### Abstract

*Cynophalla* and *Uterveria* (Capparaceae) are lectotypified here. *Uterveria* is placed in synonymy under *Cynophalla* and *Cynophalla amplissima* (Lam.) Iltis & Cornejo is proposed as a new combination.

**Key words:** Capparaceae, *Cynophalla*, *C. amplissima*, lectotipification, Neotropics.

### Resumen

Se lectotipifican a *Cynophalla* y *Uterveria* (Capparaceae). *Uterveria* es puesta en la sinonimia de *Cynophalla* y se propone la nueva combinación *Cynophalla amplissima* (Lam.) Iltis & Cornejo.

**Palabras clave:** Capparaceae, *Cynophalla*, *C. amplissima*, lectotipificaciones, neotrópico.

*Cynophalla* (DC.) J. Presl (Capparaceae) is a clear-cut New World entity, recognized and segregated as such by Candolle (1824) as a section of *Capparis* L., and by Eichler (1865) at the subgeneric level. *Cynophalla* was established as a genus by Presl (1825), but for a long time has been placed in synonymy under *Capparis s.l.*, a polymorphic Old World genus (Cornejo & Iltis 2008a). In recent years, *Cynophalla* has been resurrected and recognized at generic level based on morphological grounds (Cornejo & Iltis 2006, 2008b). Additionally, a recent phylogenetic study based on molecular data (Hall 2008) also supports the splitting of the New World species traditionally identified or placed in *Capparis* and demonstrated the monophyly of *Cynophalla*.

Among the new world genera of Capparaceae, *Cynophalla* is easily recognizable because of many distinctive characters, such as the mostly glabrous or, if pubescent, then with simple, unbranched hairs, a 2-seriate anisosepalous calyx with the outer sepals smaller, the 1 (to 3) peculiar supra-axillary nectary gland(s) arranged in the leaf axils just above the petioles mostly on young branches, the usually distichous phyllotaxy, the flat to somewhat concave floral nectaries, these usually disposed  $\pm$  horizontally on the receptacle

and the capsular fruits bearing seeds with green embryos (Cornejo & Iltis 2008b). The calyces of *Cynophalla* are only similar to those of *Anisocapparis* Cornejo & Iltis, that is a monospecific genus restricted to Bolivia, Paraguay, and adjacent Brazil to northern Argentina (Cornejo & Iltis 2008a). However, *Anisocapparis* is easily recognized by absence (vs. presence) of supra-axillary nectary glands, the floral nectaries strongly dimorphic (vs. floral nectaries monomorphic), the pollen finely reticulate (vs. pollen tectate-spinulose), the fruits pepo (vs. capsular), and mainly by the seeds subglobose, with embryos highly anisocotylar, with a major cotyledon, subglobose, compact, white, specialized for storage, and a minor cotyledon rudimentary or absent (vs. seeds  $\pm$  reniform and laterally somewhat flattened, with embryos of similar shape and size, green, many times convolute, thin and flexible) (Cornejo & Iltis 2008a,c).

*Cynophalla* comprises ca.  $16 \pm$  closely related species forming a polyploidy series (Iltis & Cornejo 2005), distributed from the United States (southern Florida) and Mexico to northern Argentina and the West Indies (Cornejo & Iltis 2008b). In the present work, the genus *Cynophalla* is lectotypified, a new synonym and a new combination are presented.

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***Cynophalla*** (DC.) J. Presl in Berchtold & Presl, *Prir. Rostl.* 2: 275. 1825. *Capparis* sect. *Cynophalla* DC., *Prodr.* 1: 249. 1824. *Capparis* subg. *Cynophalla* (DC.) Eichler in Mart., *Fl. bras.* 13: 281. 1865. Type species: *Capparis flexuosa* (L.) L. (*Cynophalla flexuosa* (L.) J. Presl, lectotype, here designated. *Uterveria* Bertol., *Pl. Nov. Hort. Bonon.* 2: 7. 1839, p.p. [excl. *U. frondosa* (Jacq.) Bertol., *U. comosa* (Jacq.) Bertol., *U. breynia* (L.) Bertol., *U. tenuisiliqua* (Jacq.) Bertol.], *syn. nov.* Type species: *Uterveria verrucosa* (Jacq.) Bertol. (*Cynophalla verrucosa* (Jacq.) J. Presl); lectotype here designated.

*Uterveria* was proposed as a neotropical genus of Capparaceae, segregated from *Capparis s.l.* The name was published by Bertoloni (1839), in which eight mostly unrelated species belonging to four genera, all characterized by 2-valvate capsular fruits, were transferred from *Capparis s.l.* to this quite artificially assembled genus, without any species designated as the type. Due to its heterogeneous composition, *Uterveria* has been regarded as a doubtful genus neglected by botanists (Walpers 1842), or synonymized under *Capparis*, but not assigned to any of its subgenus (Eichler 1865). Subsequently, *Uterveria* was placed in *Capparis* sect. *Capparidastrum* DC. (Bentham & Hooker 1867), cited after a brief morphological description and with “Jacq. Amer. t. 104” added at the end; this illustration is the lectotype of *Capparis frondosa* Jacq., designated in Al-Shehbaz (1988). However, in our realignment of neotropical *Capparis s.l.*, *Uterveria* cannot be placed in *Capparidastrum* (DC.) Hutch., because *Capparis frondosa* is the lectotype of *Capparis* sect. *Capparidastrum* (Rankin & Greuter 2004: 261), which is the basonym of the valid genus *Capparidastrum*, that is an earlier name than *Uterveria*, this follows Art. 10.5 of ICBN (McNeill *et al.* 2006). *Uterveria frondosa* (*Capparidastrum frondosum* (Jacq.) Cornejo & Iltis) has been cited as the type of *Uterveria* (Innocencio *et al.* 2006), but in the previous literature such typification does not exist. That citation cannot be considered as a valid lectotypification, because Art. 7.11 of ICBN (McNeill *et al.* 2006) states that on or after 1 Jan 2001 lectotypifications must include the phrase “designated here” or an equivalent. The lectotypification of *Uterveria* as proposed here follows Art. 10.2, 10.3 of ICBN (McNeill *et al.* 2006).

Hall *et al.* (2008) showed that *Capparis amplissima* Lam. is nested in the *Cynophalla* clade. That species also has strong morphological support to be placed in *Cynophalla*, therefore the following combination is proposed.

***Cynophalla amplissima*** (Lam.) Iltis & Cornejo, *comb. nov.* *Capparis amplissima* Lam., *Encycl.* 1: 607. 1783. Type: WEST INDIES. Without exact locality, Plumier, *Pl. Amer. tab.* 73, fig. 2, 1756. (lectotype designated by Al-Shehbaz (1988)).

This species occurs from southern Nicaragua to Bolivia, W Brazil (Acre; *Daly et al.* 7884, NY), and in the West Indies. Photos and a description of this species are available on line, in the web site Vascular Plants of the Osa Peninsula, Costa Rica (Aguilar *et al.* 2008).

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