

New Combinations in *Parasenegalia* and *Mariosousa* (Fabaceae: Mimosoideae)

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ABSTRACT

Morphological and genetic differences separating the subgenera of *Acacia* s. l., and molecular evidence that the genus *Acacia* s.l. is polyphyletic, necessitate transfer of species from *Senegalia* to *Parasenegalia*, resulting in four new combinations: *Parasenegalia amorimii* (M. J. F. Barros & M. P. Morim) Seigler & Ebinger, **comb. nov.**, *P. grazielae* (M. J. F. Barros & M. P. Morim) Seigler & Ebinger, **comb. nov.**, *P. incerta* (Hoehne) Seigler & Ebinger, **comb. nov.**, and *P. miersii* (Benth.) Seigler & Ebinger, **comb. nov.** The names *Acacia incerta* and *A. miersii* are lectotypified. *Mariosousa heterophylla* (Benth.) Seigler & Ebinger, **comb. nov.** is necessary for the transfer of *Prosopis heterophylla* Benth. to the genus *Mariosousa*. Published on-line www.phytologia.org *Phytologia* 100(4): 256-259 (Dec 21, 2018). ISSN 030319430.

KEY WORDS: *Acacia* sensu lato, Fabaceae, lectotype, *Mariosousa*, Mimosoideae, new combination; *Parasenegalia*, *Senegalia*.

Morphological differences separating species of *Senegalia* Rafinesque (1838) and molecular evidence that the genus *Senegalia* is polyphyletic (cf. Miller & Seigler, 2012) necessitate transfer of certain species to the genus *Parasenegalia* Seigler & Ebinger in Seigler et al. (2017). For the following four taxa, this results in their transfer to the segregate genus *Parasenegalia* (Seigler et al., 2017):

1. **PARASENEGALIA AMORIMII** (M. J. F. Barros & M. P. Morim) Seigler & Ebinger, *comb. nov.*
Basionym: *Senegalia amorimii* M. J. F. Barros & M. P. Morim, Syst. Bot. 39(2): 454, 456, Fig. 1. 2014. – TYPE: BRAZIL. BAHIA: “Porto Seguro. Reserva da Brasil Holanda de Ind. S/A. Entrada no Km. 22 da Rod. Eunápolis/P. Seguro. Ca. 9.5 km na entrada.” 16° 27’ 45” S, 39° 19’ 31” W, s. d., fl., *A. M. de Carvalho* n°. 4499, with *A. M. Amorim*, *S. C. Sant’Ana*, & *J. G. Jardim* (holotype: RB, RB digital image at CEPEC).

Although described originally in *Senegalia* (Barros, 2011; Barros & Morim, 2014), the complete absence of prickles indicates that this species should be transferred to *Parasenegalia*.

2. **PARASENEGALIA GRAZIELAE** (M. J. F. Barros & M. P. Morim) Seigler & Ebinger, *comb. nov.*
Basionym: *Senegalia grazielae* M. J. F. Barros & M. P. Morim, Syst. Bot. 39(2): 461-462, Fig. 5. 2014. – TYPE: BRAZIL. ESPÍRITO SANTO: Águia Branca, Rochedo, “ 18° 56’ 40.4” S, 40° 48’ 7” W, 19 Dec. 2007, fl. *V. Demuner* 4783, *T. A. Cruz* & *M. Belisário* (holotype: RB; isotypes: HUEFS, MBML).

Although described originally in *Senegalia* (Barros, 2011; Barros & Morim, 2014), the complete absence of prickles indicates that this species should be transferred to *Parasenegalia*.

3. **PARASENEGALIA INCERTA** (Hoehne) Seigler & Ebinger, *comb. nov.* Basionym: *Acacia incerta* Hoehne, Com. Lin. Telegr., Bot., 45(8): 22-23, pl. 135. 1919. *Senegalia incerta* (Hoehne) Seigler & Ebinger, Phytologia 92(1): 93. 2010. – TYPE: BRAZIL. MATO GROSSO: Cuiabá, Coxipó da Ponte, 1911, *F. C. Hoehne* [CLTE] 2535 (lectotype, here designated, R-19882 [barcode] R000019882).

A syntype 2534 was also found at the Museo Nacional in Rio de Janeiro. Both numbers 2534 and 2535 represented collections made for the Comissão de Linhas Telegraficas Estratégicas de Mato Grosso ao Amazonas (CLTE) and were not personal collection numbers (M. C. Mamede, personal communication).

4. **PARASENEGALIA MIERSII** (Benth.) Seigler & Ebinger, *comb. nov.* Basionym: *Acacia miersii* Benth., London J. Bot. 1: 522. 1842. *Senegalia miersii* (Benth.) Seigler & Ebinger in Seigler et al. Phytologia 88(1): 59. 2006. – TYPE: BRAZIL. RIO DE JANEIRO: “Corcovado,” *J. Miers 3864* (lectotype, here designated, K [barcode] K000530839).

The taxon originally described by Bentham (1842) as *Acacia miersii* was stated to be from “Aqueduct of Rio Janeiro” in the protologue. Material of this collection has not been relocated. Another collection (*J. Miers 3864*) was considered to be type material (L. Rico annotation). However, the specimen has “hort. Petrop.” and “Luschnat” written on the sheet and this may represent a duplicate that was transferred to K at some time in the past. Bentham (1876) cited “habitat in monte Corcovado prope Rio de Janeiro: Miers, Luschnath” and a Schott collection from Serra Tingua. There is nothing on the specimen itself that indicates that it was seen by Bentham. For that reason (Art. 40, especially Note 1), we choose to lectotypify *J. Miers 3864*.

A taxon originally described by Bentham (1846) in *Prosopis* is transferred here to *Mariosousa* Seigler & Ebinger (Seigler et al., 2006). The two genera are contrasted by the absence of spines in *Mariosousa*, by the stamen number (multiple, approximately 100 in *M. heterophylla* vs. ten stamens in *Prosopis*, and by the fruits in cross-section (flattened in *Mariosousa* vs. oval to flattened in *Prosopis*). A proposal to conserve the name *Acacia willardiana* Rose against *Prosopis heterophylla* Benth. (Seigler & Ebinger, 2008) was declined (Brummitt, 2011; Barrie, 2011).

5. **MARIOSOUSA HETEROPHYLLA** (Benth.) Seigler & Ebinger, *comb. nov.* Basionym: *Prosopis heterophylla* Benth., London J. Bot. 5: 82. 1846, as “*P. ? heterophylla*.” *Senegalia heterophylla* (Benth.) Britton & Rose, N. Amer. Fl. 23(2): 114. 1928. -- TYPE: MEXICO. SONORA. “Sonora alta,” 1830, *T. Coulter s.n.* (holotype, TCD). [= *Acacia willardiana* Rose in Vasey & Rose, 1890; = *Mariosousa willardiana* (Rose) Seigler & Ebinger in Seigler et al., 2006.]

Key to taxa affined to *Senegalia* s.l.:

1. Prickles common on stem and usually the leaf petiole and rachis* *Senegalia*
1. Prickles absent on stem, leaf petiole and rachis.
 2. Inflorescence a globose to subglobose head (as broad as long or nearly so).
 3. Flowers pedicellate; stamens consistently 200+; petiolar glands absent *Acaciella*
 3. Flowers sessile to rarely subsessile; stamens less than 200; petiolar glands present *Parasenegalia*, pro parte
 2. Inflorescence a cylindrical spike (commonly twice or more longer than wide)
 4. Leaflets small, 1.2-2.9 mm long and 0.4-0.9 mm wide; petioles 0.5-13 mm long; short shoots present.

- 5. Perianth scarious; flowers 7.5-10.0 mm long, the corolla 3.3-6.0 mm
Long (Bolivia) *Pseudosenegalia*
 - 5. Perianth not scarious; flowers 5.5-7.5 mm long, the corolla 2-3 mm
long (Oaxaca & Puebla, Mexico) *Mariosousa compacta* (Rose) Seigler & Ebinger
 - 4. Leaflets mostly longer and wider; petioles mostly more than 15 mm long;
short shoots absent.
 - 6. Fruit valves coriaceous; lenticels on twigs orange, orbicular to slightly
elongated vertically, some more than 0.6 mm across *Parasenegalia*, pro parte
 - 6. Fruit valves thinner, chartaceous; lenticels not orange, orbicular to
slightly elongated horizontally, very rarely to 0.6 mm across *Mariosousa*
- *Although the prickles that are characteristic for *Senegalia* may appear to be absent on rare individual specimens, careful examination usually reveals poorly developed prickles or small enations on the stems, petiole or rachis of the specimens.

Key to the species of *Pseudosenegalia* and *Parasenegalia*:

- 1. Inflorescence a cylindrical spike.
 - 2. Leaflets 1.2-2.9 mm long; perianth scarious; short shoots present below many
of the nodes (Bolivia).
 - 3. Leaves with a single pair of pinna; distance between leaflet pairs 0.3-0.6 mm
. *Pseudosenegalia feddeana* (Harms) Seigler & Ebinger
 - 3. Leaves with two or more pinna pairs; distance between leaflet pairs
0.8-1.7 mm *Pseudosenegalia riograndensis* (Atahuachi & L. Rico) Seigler & Ebinger
 - 2. Leaflets more than 4.0 mm long; perianth not scarious; short shoots absent.
 - 4. Leaflets 30 to 65 pairs/pinna; 0.7-1.6 mm between leaflet pairs (Caribbean)
. *Parasenegalia skleroxyla* (Tussac) Seigler & Ebinger
 - 4. Leaflets less than 30 pairs/pinna; 1.4 mm or more between leaflet pairs.
 - 5. Leaflets 1.8-3.2 mm wide; 1.4-4.0 mm between leaflet pairs (Belize,
Guatemala) *Parasenegalia lundellii* Seigler & Ebinger
 - 5. Leaflets 4.0-11.3 mm wide; 3.8-9.5 mm between leaflet pairs (Caribbean)
. *Parasenegalia muricata* (L.) Seigler & Ebinger
- 1. Inflorescence a globose to subglobose head.
 - 6. Leaflets 25-100 mm long; 1 to 2 pinna pairs/leaf (Brazil)
. *Parasenegalia miersii* (Benth.) Seigler & Ebinger
 - 6. Leaflets less than 24 mm long; 3 or more pinna pairs/leaf
 - 7. Petioles 2-17 mm long.
 - 8. Petioles 3-7 mm long; inflorescences 10-14 mm across (Brazil)
. *Parasenegalia santosii* (G. P. Lewis) Seigler & Ebinger
 - 8. Petioles 13-16 mm long; inflorescences 6-8 mm across (Brazil)
. *Parasenegalia grazielae* (M. J. F. Barros & M. P. Morim) Seigler & Ebinger
 - 7. Petioles more than 18 mm long.
 - 9. Pinna pairs/leaf 15 to 20 (Brazil) *Parasenegalia incerta* (Hoehne) Seigler & Ebinger
 - 9. Pinna pairs/leaf 3 to 14.
 - 10. Inflorescence 16-23 mm across; leaflets 0.8-2.1 mm wide, the midvein
bluish purple beneath (Argentina, Bolivia, Chile, Peru, Venezuela)
. *Parasenegalia visco* (Lorentz ex Griseb.) Seigler & Ebinger
 - 10. Inflorescences 4-10 mm across; leaflets 2-9 mm wide, the midvein
not bluish-purple beneath.
 - 11. Leaflets 5-9 mm long and 2-3 mm wide; inflorescence 4-7 mm
across; petiolar gland present on the lower half of the petiole (Brazil)
. *Parasenegalia amorimii* (M. J. F. Barros & M. P. Morim) Seigler & Ebinger
 - 11. Leaflets 7-18 mm long and 2.3-8.1 mm wide; inflorescence 6.5-14 mm

- across; petiolar gland usually just below the lowermost pinna pair.
 12. Inflorescences 6-10 mm across; 6 to 9 pinna pairs/leaf
 (Bolivia, Peru)
 *Parasenegalia rurrenabaqueana* (Rusby) Seigler & Ebinger
 12. Inflorescences 9-14 mm across; 3 to 6(7) pinna pairs/leaf
 (Caribbean) *Parasenegalia vogeliana* (Steud.) Seigler & Ebinger

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