

A New Combination in *Stuckenia* (Potamogetonaceae) of South America

Antonio Galán de Mera and José Alfredo Vicente Orellana

Laboratory of Botany, Department of Biology, San Pablo University, P.O. Box 67, 28660 Boadilla del Monte, Madrid, Spain

Hamilton Beltrán Santiago

Museum of Natural History, San Marcos University, P.O. Box 14-0434, Lima 14, Peru

ABSTRACT. In this work, we propose the new combination *Stuckenia punensis* (Galán de Mera) Galán de Mera for use in the Peruvian flora. This species is coincident with *S. filiformis* in its distribution in the high Andes of Peru. *Stuckenia punensis* differs from *S. filiformis* in its wider, scabrous leaves and globose achenes.

On account of the recent revision of the worldwide genus *Potamogeton* L. (Wiegleb & Kaplan, 1998), we elucidate some points regarding the family Potamogetonaceae in South America.

Recent articles on Potamogetonaceae in America include Standley and Steyermark (1958), Haynes (1974), Haynes and Wentz (1975), Haynes and Holm-Nielsen (1982), Tur (1982), Haynes (1985), and Galán de Mera (1991). After reviewing the nomenclatural novelties of Les and Haynes (1996) and Haynes et al. (1998), we propose an additional new combination of *Stuckenia* for the Peruvian flora.

Stuckenia punensis (Galán de Mera) Galán de Mera, comb. nov. Basionym: *Potamogeton punense* Galán de Mera, *Phytologia* 64: 495. 1988. TYPE: Peru. Puno: Lampa (on San Román border), at road and railroad crossing of stream draining lago Jaracocha, ca. 9 km SW of Santa Lucía, 12 Jan. 1963, alt. ca. 4000 m, H. H. & C. M. Iltis 1441, D. & V. Ugent (holotype, USM; isotype, US).

Although Wiegleb and Kaplan (1998) suggested that *Potamogeton punense* and *P. filiformis* C. H. Persoon [*Stuckenia filiformis* (C. H. Persoon) C. Börner] are synonymous, the two species are very different in their morphological and ecological characteristics (see Table 1). *Stuckenia punensis* presents much wider leaves, with 3 to 5 nerves, thickened and scabrous. The leaves of *S. filiformis* are narrower, with only 1 nerve, and smooth. The stipules of *S. punensis* are longer (5–8 cm) than

those of *S. filiformis* (1–3 cm). The achenes also differentiate the two species: in *S. punensis* they are globose and in *S. filiformis* they are gibbous. Both species are located between 3000 and 4000 m above sea level, but their ecological preferences are different; whereas *S. punensis* lives in flowing rivers, *S. filiformis* forms dense communities in high calm lagoons. Finally, *S. punensis* is a Peruvian endemic (Galán de Mera, 1991), while *S. filiformis* is widely distributed throughout the world (western, central and northern Asia, North and South America) (Wiegleb & Kaplan, 1998).

Additional specimens of Stuckenia punensis. PERU. **Cuzco:** Calca, bottom of rio Urubamba Valley at km 54, on road to Urubamba, ca. 4 km NW from Calca (8 km SE of Yucay), 2900 m, 26 Dec. 1962, H. H. & C. M. Iltis, C. Vargas 846 (US, USM). **Junín:** Tarma, bottom of rio Quishuarcancha, below Hacienda Casa Blanca (ca. 18 km (air) SSE of Tarma), 3600 m, 28 Nov. 1962, H. H. & C. M. Iltis, D. & V. Ugent 140 (USM); Yauli, aquatics from icy-cold, shallow, swift rio Mantaro, in limestone valley with treeless tussock, grassland along highway to Junín, ca. 8–10 km NW of La Oroya, ca. 3800 m, 4 Dec. 1962, Hugh H. & Carolyn Iltis, Donald & Vivian Ugent s.n. (US, USM); cerca de Paccha, entre La Oroya y Junín, Riachuelo, 3800–3900 m, 10 Jan. 1949, Ramón Ferreyra 5259 (US).

Table 1. A comparison of *Stuckenia punensis* and *S. filiformis*.

Feature	<i>S. punensis</i>	<i>S. filiformis</i>
Leaf width (mm)	2–4	0.2–0.5
Number of leaf nerves	3 to 5	1
Texture	scabrous	smooth
Stipules (cm)	5–8	1–3
Fruit morphology	globose	gibbous
Habitat	flowing rivers	lagoons of calm waters
Chorology	Peru	W, C and N Asia, North and South America

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Literature Cited

- Galán de Mera, A. 1991. Notas sobre el género *Potamogeton* L. (Potamogetonaceae) en el Perú. Publ. Mus. Hist. Nat. "Javier Prado", Ser. B, Bot. 35: 1–6.
- Haynes, R. R. 1974. A revision of North American *Potamogeton* subsection *Pusilli* (Potamogetonaceae). Rhodora 76: 564–649.
- . 1985. A revision of the clasping-leaved *Potamogeton* (Potamogetonaceae). Sida 11: 173–188.
- & L. B. Holm-Nielsen. 1982. A new species of *Potamogeton* (Potamogetonaceae) from the northern Andes. Syst. Bot. 7: 498–500.
- & W. A. Wentz. 1975. Potamogetonaceae. In: Flora of Panama. Ann. Missouri Bot. Gard. 62: 1–10.
- , D. H. Les & M. Král. 1998. Two new combinations in *Stuckenia*, the correct name for *Coleogeton* (Potamogetonaceae). Novon 8: 241.
- Les, D. H. & R. R. Haynes. 1996. *Coleogeton* (Potamogetonaceae), a new genus of Pondweeds. Novon 6: 389–391.
- Standley, P. C. & J. A. Steyermark. 1958. *Potamogeton* L. In: Flora of Guatemala. Fieldiana, Bot. 24(1): 70–72.
- Tur, M. N. 1982. Revisión del género *Potamogeton* L. en la Argentina. Darwiniana 24: 217–265.
- Wiegleb, G. & Z. Kaplan. 1998. An account of the species of *Potamogeton* L. (Potamogetonaceae). Folia Geobot. Phytotax. 33: 241–316.