

First record of the macrophyte *Stuckenia filiformis* (Persoon) Börner, 1912 (Potamogetonaceae) in Brazil

Freitas, EC.^{a*}, Arduin, M.^b and Rocha, O.^c

^aPost-graduate Program of Ecology and Natural Resources, Federal University of São Carlos – UFSCar, Rod. Washington Luis, Km 235, CP 676, CEP 13565-905, São Carlos, SP, Brazil

^bDepartment of Botany, Federal University of São Carlos – UFSCar,

Rod. Washington Luis, Km 235, CP 676, CEP 13565-905, São Carlos, SP, Brazil

^cDepartment of Ecology and Evolutionary Biology, Federal University of São Carlos – UFSCar,

Rod. Washington Luis, Km 235, CP 676, CEP 13565-905, São Carlos, SP, Brazil

*e-mail: emanuelacfreitas@gmail.com

Received March 12, 2012 – Accepted March 19, 2012 – Distributed November 30, 2012

(With 1 figure)

During the period between June and October 2011, individuals of *Stuckenia filiformis* (Persoon) Börner (1912) were abundant in the macrophyte community of the Junco Lake (UTM Coordinates – Datum SAD 69: 573405 S e 8571590 W), Bahia state, Brazil (Figure 1a, b). Since the occurrence of this species has not been previously reported for Brazil, the aim of this communication is to report the first occurrence of *S. filiformis* in Bahia state, Brazil.

Stuckenia is a genus of the family Potamogetonaceae characterised mainly by the presence of a characteristic

leaf and long leaf sheaths (Kaplan, 2008). This genus was proposed by Börner (1912) for distinguishing it from the genus *Potamogeton*. According to Kaplan (2002), *Stuckenia* species show a wide range of morphological plasticity, being that the most constant feature is the structure of leaf sheaths (Kaplan, 2008). There are two basic character states: either the sheath is closed and tubular at the base (connate) or it is open at the base on the opposite side from the leaf (convolute). To investigate the structure of leaf sheaths of *S. filiformis*, which are closed, according

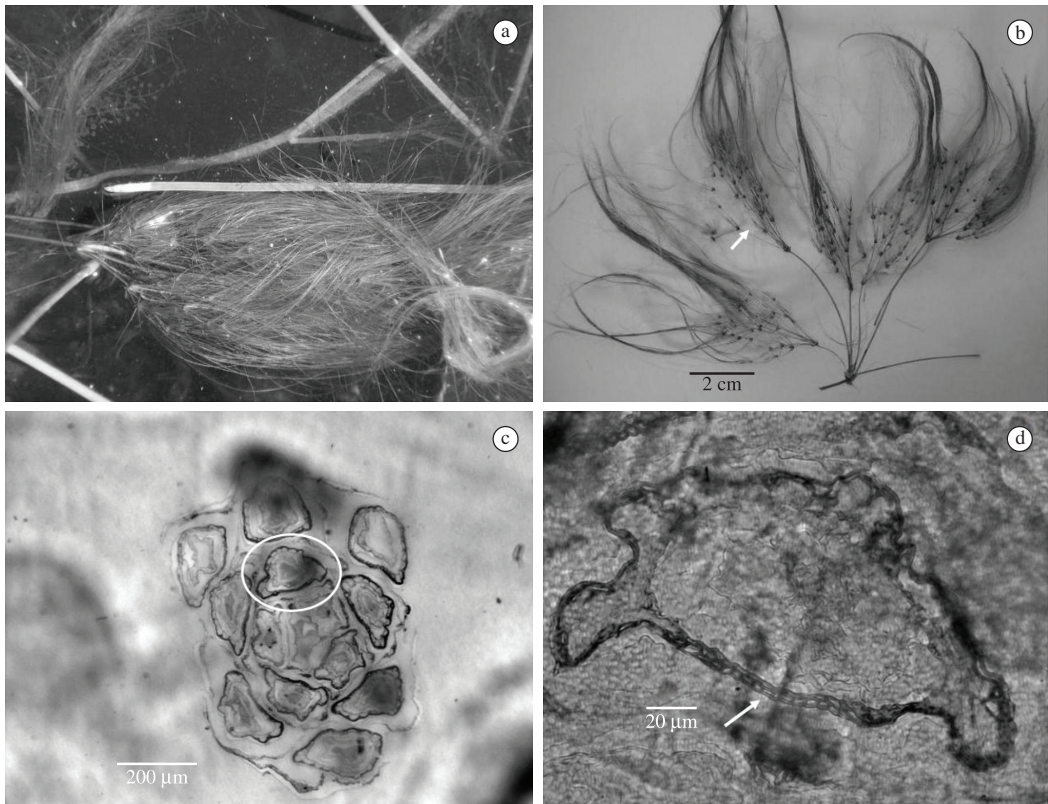


Figure 1. a) General view of *Stuckenia filiformis* from Junco Lake, in Bahia state, Brazil; b) Branching pattern: richly branched near base (see arrow); c) General view of various leaves (transverse sections) of *Stuckenia filiformis*. The encircled area shows a single leaf section (100-fold magnification), and d) the arrow indicates the leaf sheath, which is closed and tubular at the base (630-fold magnification).

to Kaplan (2008), 10 leaf sheaths were cut from the upper parts of side branches, fixed in buffered 4% formaldehyde solution for 24 hours and immersed in glycol-methacrylate basic historesin and water (1:1, v/v) for 3 days. After this time period, the samples were kept in pure basic historesin for another 3 days and then included (Soares, 1997). The included material was cut in sections (6 µm), mounted on glass slides and stained with astra blue and basic fuchsin (Kraus and Arduin, 1997). For histological assessment under the light microscope, the slides were mounted with Apathy syrup. Transverse sections of leaf sheaths are shown in Figure 1c, d.

The only record of species of the genus *Stuckenia* in Brazil until now is that of *S. pectinata* in the state of Rio Grande do Sul by Bove (2011). The occurrence of *S. filiformis* in the state of Bahia suggests that species of this genus may have a wide distribution throughout Brazil.

Acknowledgements – The authors thank Dr. José Valdecir de Lucca and Alcídio Culósio Filho, who collected the macrophyte samples.

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