Synonymy and notes on the occurrence of *Cheilolejeunea intertexta* (Lindenb.) Steph. (Lejeuneaceae, Marchantiophyta) in Neotropics

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Cheilolejeunea intertexta (Lindenb.) Steph. is a paleotropical species occurring in Africa and Asia, including East and Southeast Asia. According to many authors, the distinguishing characteristics of this species are: (1) orbicular leaf lobe with rounded and flat apex; (2) small, unicellular apical tooth (second tooth); (3) the presence of flagelliform branches; (4) innovation of the pycnolejeuneoid-type (Mizutani, 1979); (5) thin-walled leaf cells without distinct trigones (Zhu *et al.*, 2002); (6) autoicous or paroicous condition (Zhu *et al.*, 2002). Although most of these characteristics are shared by other species, one of them is remarkable and shared with the neotropical *Cheilolejeunea compacta* (Steph.) E.Reiner: the paroicous and autoicous conditions.

Cheilolejeunea compacta was described by Stephani (1914) as *Hygrolejeunea compacta* and transferred by Reiner-Drehwald (2006) to *Cheilolejeunea*. Previously, this species was only known from Trinidad; however, Blockoel *et al*. (2009) reported its occurrence in the State of Bahia, Northeastern Brazil. The various populations of *C. compacta* from Brazil (data not published) demonstrated that this species may present both the paroicous and autoicous conditions, with the paroicous plants being more common, as reported by Reiner-Drehwald (2006). Zhu & So (1999) pointed out that paroicous plants of *C. intertexta* are very common, but autoicous plants can also be found, although Mizutani (1982) has not reported paroicous condition for this species. These authors have also reported that this species is very similar to *C. paroica* Mizut., known from Borneo and Sulawesi (Mizutani, 1979). The same can be said for *C. compacta*, resulting in erroneous records of *C. paroica* for the neotropics by Bastos & Yano (2005), which was corrected by Bastos (2009). Mizutani (1979) pointed out that *C. paroica* has papillose cells dorsally. This condition is absent in *C. intertexta* and *C. compacta*.

Another character shared by both *C. intertexta* and *C. compacta* are the pycnolejeuneoid innovations. The gynoecial innovation in *Cheilolejeunea* may be pycnolejeuneoid or lejeuneoid, and some species may present both innovation sequences. However, both *C. intertexta* and *C. compacta* haves pycnolejeuneoid-type innovations, while *C. paroica* has the lejeuneoid-type. A complete description and illustration for *C. compacta* was provided by Bastos & Yano (2005, as *C. paroica*).

An examination of the specimens revealed that *C. compacta* is synonymous with *C. intertexta*, the latter name predating *C. compacta*, since no morphological differences were found that would justify the maintenance of two taxa as distinct species. Thus, *Cheilolejeunea compacta* is treated here as synonymous with *Cheilolejeunea intertexta*. As a consequence, the distribution of *Cheilolejeunea intertexta* is extended to the Neotropics.

Cheilolejeunea intertexta (Lindenb.) Steph., Bull. Herb. Boiss. 5: 79. 1897.

≡*Lejeunea intertexta* Lindenb., in Gottsche, Lindenb. & Nees, Syn. Hep. 379. 1845.

Type: Karolinen Martens s.n. (lectotype W, designated by Grolle 1979).

=*Cheilolejeunea compacta* (Steph.) E.Reiner, Nova Hedwigia 83: 477. 2006., *syn. nov.* ≡*Hygrolejeunea compacta* Steph., Sp. Hepat. 5: 532. 1914. Type: Trinidad, *Crüger s.n.* (holotype G!).

Specimens examined: BRAZIL: Bahia: Eunápolis, Estação Veracruz, 16°22′S, 16°10′W, Atlantic Forest, corticolous, 8 November1999, *C. Bastos & S.B. Vilas Bôas-Bastos 1799* (ALCB). Santa Cruz Cabrália, Cara-branca Forest Fragment, corticolous, 16°16′S, 39°01′W, 9 March 2001, *C. Bastos & S.B. Vilas Bôas-Bastos 2539, 2553* (ALCB, Bastos & Yano, 2005 as *C. paroica*). São Sebastião do Passé, Lamarão do Passé, corticolous in Atlantic Forest, 26 December 1998, *S.B. Vilas Bôas-Bastos 251* (ALCB). Alagoinhas,

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12°08′08″S, 38°25′09″W, Campus II — UNEB, 10 July 2001, *C. Bastos & S.B. Vilas Bôas-Bastos, 2954, 2961, 2972, 2973, 3004* (ALCB, Bastos & Yano, 2005 as *C. paroica*). Igrapiúna, Reserva Ecológica da Michelin, 13°48′08″S e 39°10′03″W, Pancada Grande Forest Fragment, 22 April 2006, *C. Bastos 4586* (ALCB). Espírito Santo: Guarapari, Setiba, km 32 da Rodovia do Sol, ES-60, in restinga vegetation, 18 March 1989, *O. Yano* et al. *12.584* (SP); Piuma, 24 January 1974, *D.M. Vital* 2842 (SP). Goiás: Cristalina, 31 May 1978, *D.M. Vital 8287* (SP). Mineiros, in cerrado vegetation, 21 May 1976, *D.M. Vital 6369, 6372* (SP); Jataí, in cerrado vegetation, 21 May1976, *D.M. Vital 6353* (SP); Alvorada do Norte, in cerrado vegetation, 30 May 1978, *D.M. Vital 8265* (SP); Formoso, 13°13′S, 48°49′W, Lagoa dos Muricis, 29 December 1984, *D.M. Vital 12.742* (SP). Mato Grosso: Nova Xavantina, Ilha Bela, 14 November 2003, *C. Lopes et al. s.n.* (NX). São Paulo: Mogi-Guaçú, Fazenda Campininha, Reserva Biológica e Estação Experimental, 22 December1994, *S.R. Visnadi & D.M. Vital 2886* (SP). AFRICA: Cameroon: G. Zenker (HBG). BORNEO: *H. Winkler s.n*. (HBG). SINGAPORE: Singapore. Kent Ridge Hill, in second growth evergreen tropical forest on trunk of *Samanea* (Benth.) Merr. sp., 5 November 1998, *A. Juslén 494* (H); on trunk of *Coffea canephora* Pierre ex Froehner, 6 November 1998, *A. Juslén 501* (H). Lasia Valley, second growth evergreen tropical forest, on coconut tree trunk, 13 November 1998, *A. Juslén 649* (H). Botanical Garden, on trunk of palm, 14 November 1998, *A. Juslén 694* (H).

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Taxonomic Additions and Changes: *Cheilolejeunea intertexta* (Lindenb.) Steph. (*Cheilolejeunea compacta* (Streph.) E.Reiner *syn. nov*.).

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