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On the status of *Phytophthium kandeliae* (Oomycetes, Straminipila)

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Abstract

Phytophthium kandeliae was recently published as a new combination. The existence of contradictory information about the vouchers CBS 111.91, 112.91 and 113.91 at the CBS-KNAW and the identity of the ex-type specimen is herein clarified.

Keywords – isonyms – *Phytophthium* – voucher specimens

Introduction

Halophytophthora kandeliae H.H. Ho, S.Y. Hsieh & H.S. Chang was isolated from submerged leaves of *Kandelia candel* Druce in Taiwan (Ho et al. 1991). The holotype T0928-5V was deposited as a dried culture at the Institute of Botany, Taipei, Taiwan, while its ex-type culture (ATCC 66501) was deposited at the American Type Culture Collection (USA) together with the voucher specimens ATCC 66502 and 66503. In addition, a subculture of the ex-type (NBRC 326200) was deposited at the National Institute of Technology and Evaluation (Japan). Three additional specimens (CBS 111.91, 112.91 and 113.91) were deposited at the CBS-KNAW Fungal Biodiversity Centre (Netherlands) by H.A. Chang (unpublished).

Phylogenetic studies that placed *H. kandeliae* in the *Phytophthium* clade were almost exclusively based on the voucher specimens CBS 111.91 and CBS 113.91 (Bala et al. 2010, Robideau et al. 2011, Nigrelli & Thines 2013, Marano et al. 2014a). The ex-type strain ATCC 66501 was sequenced as part of the Project “World *Phytophthora* Collection (WPC)” (strain number WPC 11614), but these sequences were never published or included in phylogenetic studies. Recently, three strains identified as *H. kandeliae* based on morphology and molecular analysis together with the vouchers CBS 111.91 and CBS 113.91 and the sequence of the ex-type were retrieved in the *Phytophthium* clade (Marano et al. 2014b). At the CBS-KNAW website the vouchers CBS 111.91 and CBS 113.91 appeared as an undescribed species of *Phytophthium*, while the voucher CBS 112.91 appeared as the ex-type of *H. kandeliae*, but has been recently sequenced and recognised as a new species of *Salisapilia* (A.W.A.M de Cock, personal communication).

Thines (2014) transferred *H. kandeliae* to *Phytophthium* and some months later Marano et al. (2014b) proposed the same combination, which is an invalid isonym (Art. 6.3, Note 2, McNeill et al. 2012).

Nomenclature

Phytophthium kandeliae (H.H. Ho, H.S. Chang & S.Y. Hsieh) Thines, *European Journal of Plant Pathology* 138: 435, Jan 2014.

≡ *Halophytophthora kandeliae* H.H. Ho, H.S. Chang & S.Y. Hsieh, *Mycologia* 83(4): 419, 1991.

“*Halophytophthora kandeli*” H.H. Ho, S.Y. Hsieh & H.S. Chang, Fourth International Mycological Congress Abstracts (Regensburg): 125, 1990, nom. inval. (no Latin).

“*Phytophthium kandeliae*” Marano, A.L. Jesus & Pires-Zottar., *Mycosphere* 5(4): 518, Aug 2014, nom. inval. (later isonym).

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