



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(CBS 111.91, 112.91 and 113.91) were deposited at the CBS-KNAW Fungal Biodiversity Centre (Netherlands) by H.A. Chang (unpublished).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

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

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

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