

Phytotaxa

ISSN 1179-3113 print edition
ISSN 1179-3121 online edition



20 April 2017



Magnolia Press, Auckland, New Zealand

Vol 305, No 2

24 April 2017

DOI: <http://dx.doi.org/10.11646/phytotaxa.305.2>



 Open Access  Subscription or Fee Access

Table of Contents

Article

[More new rattans from New Guinea and the Solomon Islands \(*Calamus*, Arecaceae\)](#)

WILLIAM J. BAKER, JOHN DRANSFIELD

[Berteroa physocarpa \(Brassicaceae\), a new species from NW Turkey based on morphological and molecular data](#)

SIRRI YÜZBAŞIOĞLU, İHSAN A. AL-SHEHBAZ, ELİF YÜZBAŞIOĞLU, EDA DALYAN

[Two new species of *Pavonia* \(Malvoideae, Malvaceae\) from southern Bahia, Brazil](#)

VICTOR M. GONÇALEZ, BERNARD E. PFEIL, ALEXANDRE ANTONELLI, MARÍLIA C. DUARTE

[Typifications of the Linnaean name *Equisetum hyemale* and *E. ×moorei* \(Equisetaceae\)](#)

P. PABLO FERRER-GALLEGO, EMILIO LAGUNA, JOSEP A. ROSSELLÓ

[Behuria lumiarensis \(Melastomataceae\), a new species on a mountaintop of the Brazilian Atlantic Forest](#)

THUANE BOCHORNY, FABIAN A. MICHELANGELI, RENATO GOLDENBERG

Correspondence

[Type studies confirm that *Perenniporia subacida* and its four varieties are synonyms](#)

ZHENG-HUI WANG, ZI-QIANG WU, CHANG-LIN ZHAO



ISSN 1179-3155 (print); ISSN 1179-3163 (online)

Published by [Magnolia Press](#), Auckland, New Zealand



Type studies confirm that *Perenniporia subacida* and its four varieties are synonyms

ZHENG-HUI WANG¹, ZI-QIANG WU³ & CHANG-LIN ZHAO^{1,2*}

¹College of Forestry, Southwest Forestry University, Kunming 650224, P.R. China; ²Yunnan Academy of Biodiversity, Southwest Forestry University, Kunming 650224, P.R. China; ³Key Laboratory of Forest Disaster Warning and Control of Yunnan Province, Southwest Forestry University, Kunming 650224, P.R. China; *Corresponding author's e-mail: fungichanglinz@163.com

Perenniporia subacida (Peck) Donk, previously known as *Polyporus subacidus* Peck (Peck 1885), causes a serious wood rot disease in tropical and temperate forests (Gilbertson & Ryvarden 1987, Ryvarden & Gilbertson 1994, Núñez & Ryvarden 2001, Dai *et al.* 2002, Decock & Stalpers 2006, Zhao *et al.* 2013, Ryvarden & Melo 2014). Peck (1885) described this taxon with four varieties, *Polyporus subacidus* var. *stalactiticus* Peck, *P. subacidus* var. *tenuis* Peck, *P. subacidus* var. *tuberculosis* Peck and *P. subacidus* var. *vesiculosus* Peck based on different hosts and this species has been transferred into several genera, *Poria* Pers., *Chaetoporus* P. Karst, *Oxyporus* (Bourdot & Galzin) Donk and *Perenniporia* Murrill (Saccardo 1888, Bondartsev & Singer 1941, Parmasto 1961, Donk 1967).

Currently, it is generally accepted as *Perenniporia subacida* based on its morphological characters: resupinate basidiocarps and thick-walled basidiospores (Gilbertson & Ryvarden 1987, Ryvarden & Gilbertson 1994, Núñez & Ryvarden 2001, Dai *et al.* 2002, Decock & Stalpers 2006, Zhao *et al.* 2013, Ryvarden & Melo 2014). But the four varieties were overlooked in previous studies.

Phylogenetic studies based on the internal transcribed spacer (ITS) regions and the large subunit nuclear ribosomal RNA gene (nLSU) have been performed on the genus *Perenniporia* s.l., including *P. subacida* (Robledo *et al.* 2009, Zhao *et al.* 2013). However, in the previous studies, the four varieties of *Perenniporia subacida* have not been included. In the present study, we studied the types of *Perenniporia subacida* and its four varieties. The aim of this paper is to report the results of this study.

Perenniporia subacida (Peck) Donk (1967: 76)

Basionym: *Polyporus subacidus* Peck (1885: 92).

≡ *Poria subacida* (Peck) Sacc. (1888: 6); *Chaetoporus subacidus* (Peck) Bondartsev & Singer (1941: 39); *Oxyporus subacidus* (Peck) Komarova (1961: 3).

= *Polyporus subacidus* var. *stalactiticus* Peck (1885: 93); *P. subacidus* var. *tenuis* Peck (1885: 93); *P. subacidus* var. *tuberculosis* Peck (1885: 93); *P. subacidus* var. *vesiculosus* Peck (1885: 93).

Note: Peck (1885) distinguished four varieties stating them to come from different hosts, but our examination of the types showed that all the five types were collected in the same locality, viz. Osceola, NY, USA and on the same host, i.e. hemlock, (*Tsuga* sp). The five type specimens shared the same morphological characters such as perennial, resupinate to effused-reflexed basidiocarps with dull cream to dingy-yellowish to pale tan color and small pores (4–6 per mm), a trimitic hyphal system with unbranched, strong dextrinoid skeletal hyphae and ellipsoid, non-truncate, non-dextrinoid basidiospores (4.5–5.8 × 3.5–4.5 μm).

Our studies show that the four varieties of *Perenniporia subacida* are not different from the type variety and should be considered as synonyms of the latter.

In the Species Fungorum (www.speciesfungorum.org), the four varieties have been put under synonymy of *Polyporus subacidus*; however, nobody has formally proposed this synonymy and we have not seen these varietal names listed synonymys of *Perenniporia subacida* in any other literature.

Specimens examined.—USA. New York: Osceola, on hemlock, August 1885, C.H. Peck, *BPI 844697* (BPI!, holotype of *Polyporus subacida* var. *subacida*); New York: Osceola, on hemlock, August 1885, C.H. Peck, *BPI 844698* (BPI!, type of *Polyporus subacida* var. *tenuis*); New York: Osceola, on hemlock, August 1885, C.H. Peck, *BPI 844699* (BPI!, type of *Polyporus subacidus* var. *tuberculosis*); New York: Osceola, on hemlock, August 1885, C.H. Peck, *BPI 885855* (BPI!, type

of *Polyporus subacidus* var. *stalactiticus*); New York: Osceola, on hemlock, August 1885, C.H. Peck, BPI 885858 (BPI, type of *Polyporus subacidus* var. *vesiculosus*).

Peck (1885) described *Polyporus subacidus* with four varieties, *P. subacidus* var. *stalactiticus*, *P. subacidus* var. *tenuis*, *P. subacidus* var. *tuberculosis* and *P. subacidus* var. *vesiculosus*. Currently, *Polyporus subacidus* is generally accepted as *Perenniporia subacida* based on its morphological characters. In the present study, we studied the types of *Perenniporia subacida* and its four varieties and the result shows that they are not different from the type variety and should be considered as synonyms of *P. subacida*.



FIGURE 1. Basidiomata of *Perenniporia subacida* (holotype, BPI 844697) and its four varieties. A *Polyporus subacida* var. *subacida*. B *Polyporus subacidus* var. *stalactiticus*. C *Polyporus subacida* var. *tenuis*. D *Polyporus subacidus* var. *tuberculosis*. E *Polyporus subacidus* var. *vesiculosus*. Scale bar = 2 cm.

Acknowledgements

The authors are grateful to Dr. Donald H. Pfister (Harvard University, USA) for his valuable advice on this work, and we express our gratitude to curator of United States National Fungus Collections (BPI) and Farlow Herbarium (FH) for loan of specimens. The research was financed by Yunnan Province Top Subject Project (No.51600625).

References

- Bondartsev, A. & Singer, R. (1941) Zur Systematik der Polyporaceae. *Annales Mycologici* 39:43–65.
 Dai, Y.C., Niemelä, T. & Kinnunen, J. (2002) The polypore genera *Abundisporus* and *Perenniporia* (Basidiomycota) in China, with notes on *Haploporus*. *Annales Botanici Fennici* 39: 169–182.

- Decock, C & Stalpers, J. (2006) Studies in *Perenniporia*: *Polyporus unitus*, *Boletus medulla-panis*, the nomenclature of *Perenniporia*, *Poria* and *Physisporus*, and a note on European *Perenniporia* with a resupinate basidiome. *Taxon* 53: 759–778;
<http://dx.doi.org/10.2307/25065650>
- Donk, M.A. (1967) Notes on European polypores II. *Persoonia* 5: 47–130.
- Gilbertson, R.L. & Ryvarden, L. (1987) *North American polypores 1*. Fungiflora, Oslo.
- Núñez, M. & Ryvarden, L. (2001) East Asian polypores 2. *Synopsis Fungorum* 14: 165–522.
- Parmasto, E. (1961) Eesti seente eksikaat. *Mycotheca Estonica* 3:51–75.
- Peck, C.H. (1885) Report of the Botanist (1884). *Annual Report on the New York State Museum of Natural History* 38: 77–138.
- Robledo, G.L., Amalfi, M., Castillo, G., Rajchenberg, M. & Decock, C. (2009) *Perenniporiella chaquenia* sp. nov. and further notes on *Perenniporiella* and its relationships with *Perenniporia* (Poriales, Basidiomycota). *Mycologia* 101: 657–673.
- Ryvarden, L. & Gilbertson, R.L. (1994) European polypores 1. *Synopsis Fungorum* 6: 1–387.
- Ryvarden, L. & Melo, I. (2014) Poroid fungi of Europe. *Synopsis Fungorum* 31: 1–455
- Saccardo, P.A. (1888) Sylloge Hymenomycetum, Vol. II. Polyporeae, Hydneae, Thelephoreae, Clavariaeae, Tremellineae. *Sylloge Fungorum* 6:1–928.
- Zhao, C.L., Cui, B.K. & Dai, Y.C. (2013) New species and phylogeny of *Perenniporia* based on morphological and molecular characters. *Fungal Diversity* 58: 47–60.
<http://dx.doi.org/10.1007/s13225-012-0177-6>