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New records of *Phaeoisaria triseptata* and *Spadicoides heterocolorata* for Brazil

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Abstract

Phaeoisaria triseptata and *Spadicoides heterocolorata* are described, illustrated and discussed. Both species represent new records for Brazil.

Key words – Conidial fungi – hyphomycetes – semi-arid Neotropics

Introduction

After a survey of conidial fungi performed at the Serra da Fumaça (10°74'S 40°36'W), Bahia state, in 2008, several new species and new records for Brazil have been reported (Almeida et al. 2011, Almeida et al. 2012, Almeida et al. 2014, Almeida et al. 2015). In this paper, we present two additional records of conidial fungi collected in that area.

Materials & Methods

The samples of decaying leaves were placed in paper bags, taken to the laboratory of State University of Feira de Santana and prepared according to Castañeda-Ruiz (2005). Methods for specimen collection, isolation, and morphological examination are described in Almeida et al. (2014). The specimens were deposited in the Herbarium of Universidade Estadual de Feira de Santana (HUEFS).

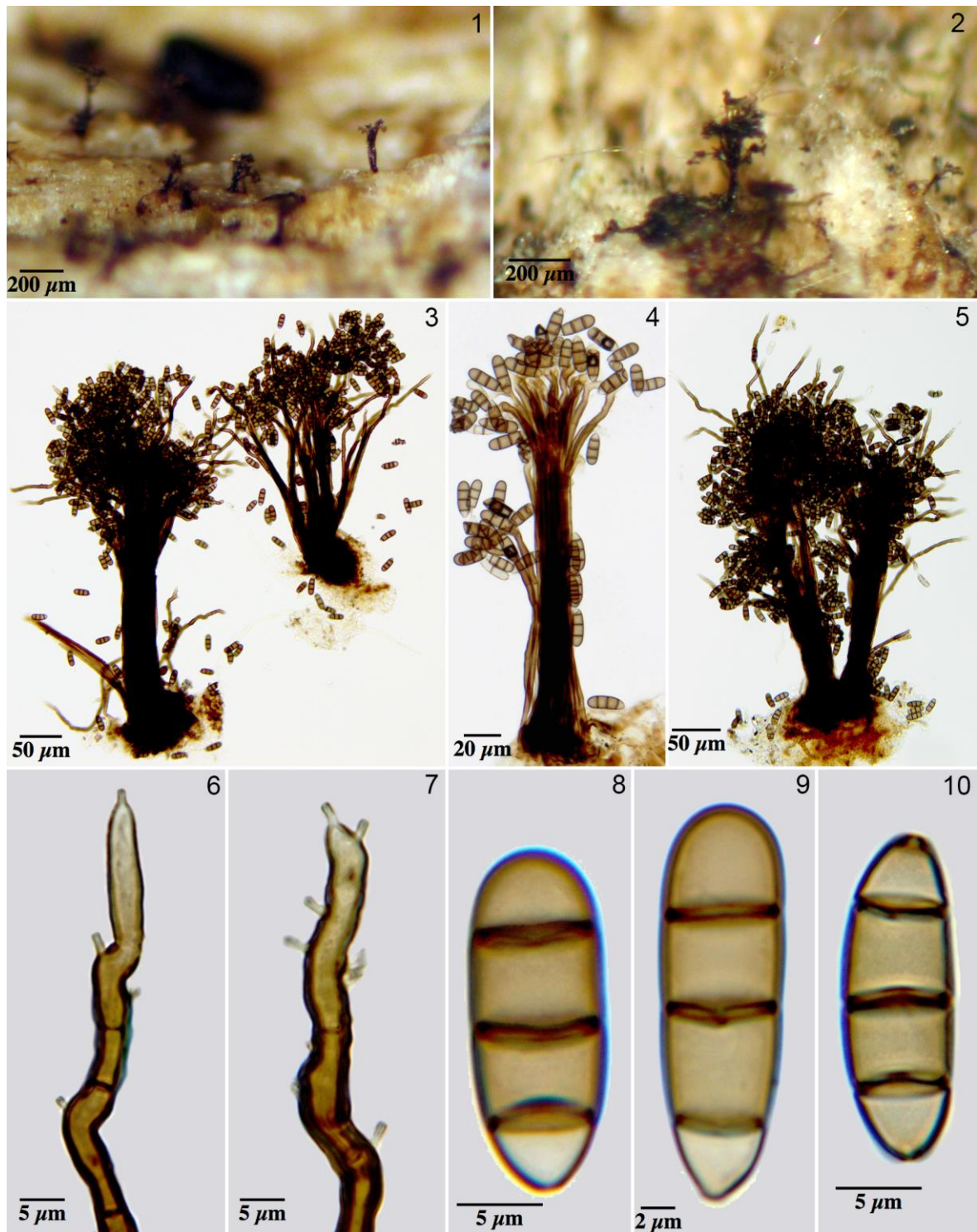
Results

Phaeoisaria triseptata Hol.-Jech., Česká Mykol. 42(1): 27. 1988.

Figs 1–10

Syn.: *Helicomina triseptata* (Hol.-Jech.) R.F. Castañeda, Guarro & Saikawa, Cryptog. Mycol. 23(1): 16. 2002.

Synnemata straight or flexuous, indeterminate, dark brown at base, pale brown at apex, 17.5–62.5 µm wide. Conidiophores caespitose to synnematos, macronematous, simple, cylindrical, erect, straight or flexuous, septate, smooth, brown, arising from a rudimentary pseudoparenchymatous stromata, (75–) 150–475 × 3–5 µm. Conidiogenous cells polyblastic, integrated, terminal or intercalary, sympodial, cylindrical, smooth, denticulate, pale brown near base, subhyaline at the apex, splaying out at the apex of the synnemata; denticles conspicuous, cylindrical, truncate at the apex, 2–4 × 1–1.2 µm. Secession schizolytic. Conidia solitary, dimorphic, type 1 ellipsoidal to clavate, basal cell conical and pale brown, another cells brown,

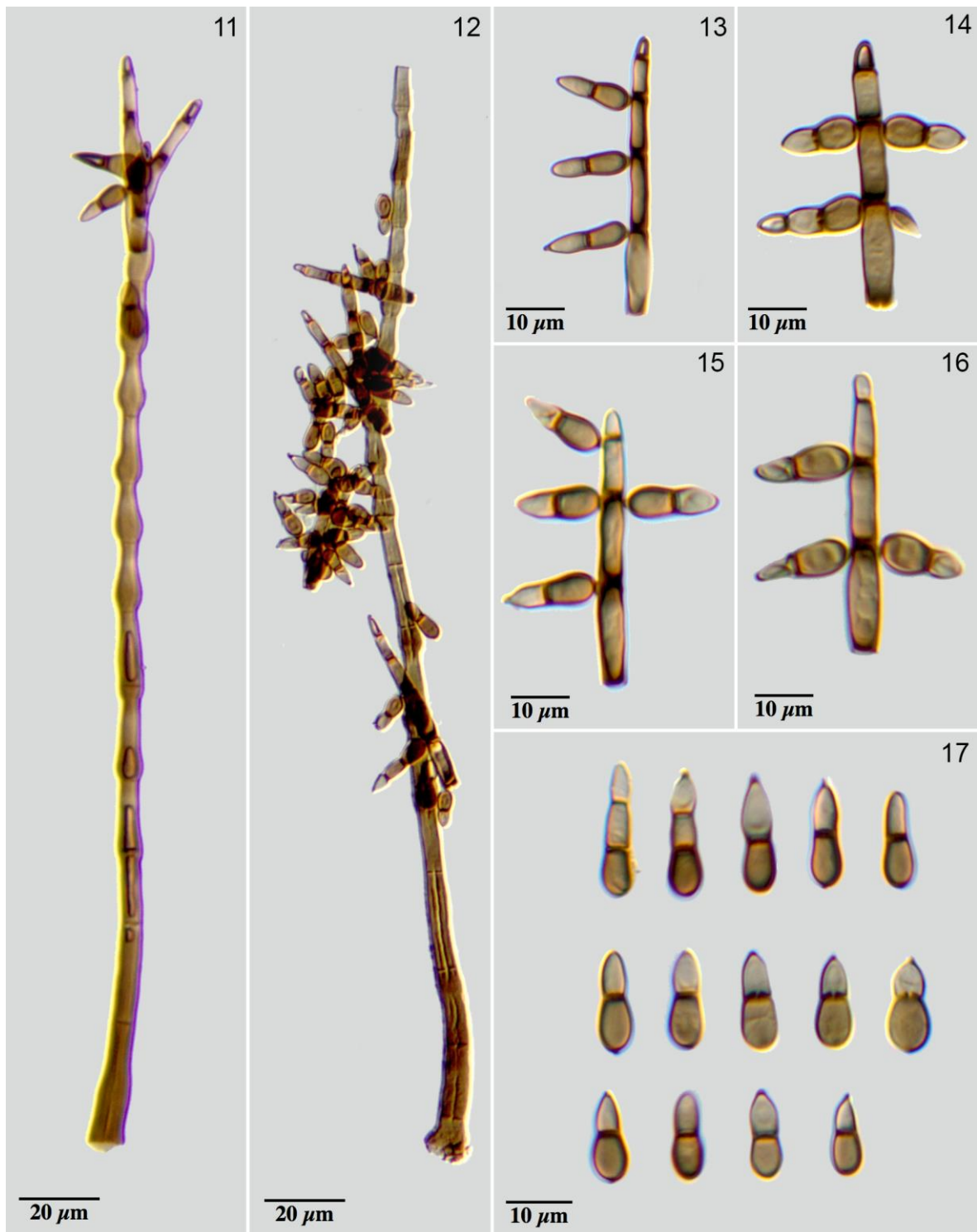


Figs 1–10 – *Phaeoisaria triseptata*. 1–2 Synnemata on natural substrate. 3–5 General aspect. 6–7 Conidiogenous cells. 8–10 Conidia.

rounded at the apex; type 2 fusiform, basal and apical cells both conical and pale brown, central cells brown; simple, dry, smooth, 3-septate, straight or slightly curved, 16–23 (–29) × 6–8 µm.

Known distribution – Cuba (Holubová-Jechová 1988), USA (Delgado 2009), Puerto Rico (Cantrell et al. 2016), China (Zhang 2012).

Material examined – Brazil, Bahia, Pindobaçu, Serra da Fumaça, on decaying bark of an unidentified plant, 27 Nov 2008, D.A.C. Almeida (HUEFS 155079); 13 Jan 2009, D.A.C. Almeida (HUEFS 155080).



Figs 11–14 – *Spadicoides heterocolorata*. 11–12 General aspect. 13–16 Conidiogenous cells and conidia. 17 Conidia.

Notes – *Phaeoisaria triseptata* was transferred to *Helicomina* L.S. Olive by Castañeda Ruiz et al. (2002). *Helicomina*, however, was previously considered synonym of *Pseudocercospora* Speg. by Deighton (1976). On the other hand, this synonymization has not been a consensus (Zhao et al. 2007; Seifert et al. 2011). Alike Delgado (2009) we consider more appropriate keep it in *Phaeoisaria* until molecular data can elucidate its phylogenetic placement. The Brazilian specimens agree with the original description, except by the shorter conidiophores (75–475 µm versus 600–1800 µm) and dimorphic conidia.

Spadicoides heterocolorata (R.F. Castañeda, Guarro & Cano) Goh & K.D. Hyde, Can. J. Bot. 76(10): 1702. 1999. Figs 11–17

Bas.: *Spadicoides obclavata* var. *heterocolorata* R.F. Castañeda, Guarro & Cano, Mycotaxon 63: 177. 1997.

Conidiophores macronematous, simple or branched, cylindrical, erect, straight or flexuous, septate, smooth, brown at the base and septa, pale brown toward the apex, the region near septa usually slightly enlarged, except at the basal cells, successively proliferating to form a new apical conidiogenous cell, $248\text{--}648 \times 7\text{--}14 \mu\text{m}$. Conidiogenous cells polytretic, integrated, terminal and intercalary, cylindrical, smooth, pale brown. Conidia solitary, obclavate, versicolor, basal cell brown, apical cell pale brown, 1-septate, rarely 2-septate, dry, constricted at septa, $11\text{--}21 \times 4\text{--}6 \mu\text{m}$. Synanamorph not seen.

Known distribution – Cuba (Castañeda Ruiz et al. 1997).

Material examined – Brazil, Bahia, Pindobaçu, Serra da Fumaça, on decaying leaf of an unidentified plant, 20 Sep 2008, D.A.C. Almeida (HUEFS 192144).

Notes – *Spadicoides heterocolorata* was proposed as a variety of *S. obclavata* by Castañeda Ruiz et al. (1997) and after elevated to species rank by Goh & Hyde (1998). The main differences between them are the conidial septation, mostly 1-septate in the former and mostly 2-septate in the later, and the presence of an observable protruding hilum in the conidia of the *Spadicoides heterocolorata*. Goh & Hyde (1998) also pointed out to justify the combination that there are differences in the microconidial shape and size between the *Selenosporella*-like synanamorph produced by both species. The Brazilian material, however, did not produce the synanamorph. Our material agrees with the original description except by the conidiophores with region near septa of the upper cells usually slightly enlarged and by absence of the synanamorph.

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