

Chaetothyria spondiadis

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***Chaetothyria spondiadis* Fuentes-Aponte, K. Kim & Romberg, sp. nov.**

Etymology. Named for *Spondias*, the host genus from which this fungus was collected.

Classification — *Phaeothecoidiaceae*, *Mycosphaerellales*, *Dothideomycetes*.

Causes flyspeck on fruits of *Spondias*. *Ascomata* thyrothecial, circular, medium to dark brown, gregarious to solitary, superficial, 164.5–254 µm diam, ostiolate, margin entire to slightly irregular. *Setae* 49–112.5 µm long, wider at the base, scattered on the surface of the thyrothecia, straight, unbranched, septate, brown, smooth, easily removed. Upper wall consisting of 2–3 layers of cells, dark brown, *textura epidermoidea*. *Hamathecium* consisting of septate, hyaline pseudoparaphyses, 1.5–2 µm wide, sometimes branched at the tip. *Asci* bitunicate, oblong to pyriform, 24.7–50.8 × 8.8–16.4 µm, with eight biseriate ascospores. *Ascospores* hyaline, ovoid to elongated ovoid, 11.3–15.75 × 2.5–5.6 µm, 1-septate, often slightly constricted at septum, ends rounded, walls smooth.

Culture characteristics — Colonies slow-growing, reaching 15–30 mm diam after 35 d at 25 °C on MEA. Colony pulvinate, circular, entire, with a light grey surface, and reverse dark iron-grey.

Typus. USA, Puerto Rico, Hatillo, on fruits of *Spondias mombin* (*Anacardiaceae*), Nov. 2018, S. Fuentes-Aponte (holotype BPI 911218, culture ex-type CBS 145915, ITS and LSU, sequences GenBank MT339448 and MT339447, MycoBank MB835259).

Additional material examined. USA, Puerto Rico, San Juan, *S. mombin*, 1961, M. Farr, BPI 644792; San Juan, *Spondias* sp., 1966, F. Pollack, BPI 644782; San Juan, *Spondias* sp., 1969, F. Pollack, BPI 646405; San Juan, *S. dulcis*, 1970, F. Pollack, BPI 646519. – Intercepted specimens: USA, intercepted in Miami, Florida, entering from Jamaica, *S. cytherea*, 1963, F. Pollack, BPI 646407; intercepted in New York, New York, entering from Brazil, *S. mombin*, 1964, F. Pollack, BPI 646446; entering from Trinidad, *S. dulcis*, 1966, A. Watson, BPI 646243.

Notes — *Chaetothyria* was described in 1913 by Theissen, with type species *Chaetothyria musarum*. Several species have been described in the genus, mainly on tropical hosts including *Artocarpus* (*Chaetothyria artocarp*), *Mangifera* (*Chaetothyria guttulata*), *Anacardium* (*Chaetothyria megalospora*) and *Musa* (*Chaetothyria musarum*) (Singtripop et al. 2016). The measurements of salient characters for most of these species overlap. Stevenson (1975) identified the fungus causing flyspeck on *Spondias cytherea* and *Spondias mombin* in Puerto Rico as *Chaetopeltopsis tenuissima* which was later transferred to *Chaetothyria* as *C. tenuissima* (Müller & Von Arx 1962). *Chaetothyria tenuissima* (*Asterina tenuissima*) was described from *Hevea brasiliensis* in Sri Lanka by Petch (1906) with the following characters: ‘perithecia 130–160 µm diam, asci 30–40 × 9–12, spores 13 × 4, one-septate, constricted, fusoid, hyaline’. Other superficial, thyrothecial fungi with similar ascospores reported from *Spondias* include *Stomiopeltis* sp. reported from Venezuela on *Spondias mombin* and *Schizothyrium* sp. reported from *Spondias purpurea* in the West Indies. *Chaetothyria spondiadis* is genetically distinct from both *Stomiopeltis* and *Schizothyrium* and clearly belongs to *Chaetothyria*. It is morphologically distinct from *C. tenuissima*, having larger thyrothecia, asci and ascospores.

Few described *Chaetothyria* species have sequences available in public databases. In a megablast search of the NCBI GenBank, ITS sequences of *C. spondiadis* showed highest identity to *Chaetothyria guttulata* (GenBank NR_153923.1, 98.17 %) and *Chaetothyria musarum* (GenBank KX372275.1, 96.88 %). Alignment of the ITS regions of these and other fungi in the *Capnodiales* revealed several indels and SNPs between the sequences of the two other species of *Chaetothyria* available publicly and *Chaetothyria spondiadis*.

Colour illustrations. Puerto Rico, type locality, tree of *Spondias mombin*. Thyrothecia on host; thyrothecium; asci; ascospores. Scale bars = 10 µm.