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Sphaerographium nyssicola Minnis, Rossman & D.F. Farr, *sp. nov.*

Conidiis uniseptatis. Differt a *Sphaerographium tenuirostrum* conidiis longioribus, 20–29 µm longis.

Etymology. Named for its occurrence on overwintered, dead and fallen leaves of the genus *Nyssa*, the substrate from which the type was isolated.

Conidiomata pycnidial, superficial or immersed in agar, separate or confluent with walls partially fused, typically globose, glabrous, unilocular, black, 190–650 µm diam. *Ostioles* single or rarely two, on end of a concolorous neck up to 480 µm long or on a short papilla in neckless forms. *Conidiomatal wall* bilayered with a darkly pigmented outer layer of relatively thick-walled *textura angularis* and a hyaline inner layer of similarly shaped cells with thinner walls. *Conidiophores* covering inner wall layer, often branching at base and at times with secondary branching, smooth, hyaline, septate, 16–56 × 1.3–2.6 µm. *Conidiogenous cells* determinate, integrated or discrete, phialidic, cylindrical, walls smooth, hyaline, non-terminal cells producing conidia at a locus immediately below each apical septum, terminal cells 6.4–12 × 1.3–1.9 µm, collarette lacking. *Conidia* whitish in mass, solitary, fusiform, falcate, apex acute, base broadly acute to slightly rounded, walls smooth, hyaline, medianly 1-septate, eguttulate, vacuoles occasionally present, 20–29 × 1.9–2.6 µm.

Culture characteristics — Colonies 46–50 mm diam on potato-dextrose agar (Difco) after 14 d at 24 °C with a 12 h light/dark rhythm; mycelium at times scanty, superficial to more or less immersed, with aerial mycelium absent or present as a low, dense, white, velutinous to lanose mat; margin even to slightly lobed, colourless; pycnidia developing somewhat in a pattern of concentric rings; reverse colourless to white, pycnidia observable. Mycelium with hyphae branching, septate, walls smooth, hyaline, 1.3–3.8 µm diam.

Colour illustrations. Overwintered, dead and fallen leaves of *Nyssa* at topotype; conidiomata; conidiophores; conidia. Scale bars = 10 µm.

Typus. USA, Maryland, Prince George's Co., Glenn Dale, U.S. Plant Introduction Station, 11601 Old Pond Dr., 38°58'00.49"N 76°48'12.78"W, on overwintered, dead and fallen leaves of *Nyssa* spp., May 2009, collected by R.T. Olsen, isolated by A.M. Minnis from BPI 880897 (sparse material associated with proposed epitype of *Sphaerella nyssicola*), BPI 881009 (dried culture on PDA, holotype); culture ex-holotype CBS 128284, GenBank ITS HQ338472, MycoBank MB519095.

Notes — *Sphaerographium* is a little known and rarely collected genus of coelomycetes. Recent work including a revision of the genus^{2, 3} has reduced the number of species that are correctly classified in the genus to three. *Sphaerographium petiolicola*, known from *Sorbus* petioles in Europe, differs from the present species in having aseptate conidia; *S. squarrosum*, known from *Lonicera* twigs in Europe, differs in having 1–3 septate conidia; and *S. tenuirostrum*, known from *Camellia* petals in New Zealand, differs in having shorter (< 20 µm long) conidia^{2, 3}. *Sphaerographium nyssicola* is the only species in the genus known from the USA.

No ITS sequences of *Sphaerographium* exist for species rank comparison; we have generated one for this new species and deposited it in GenBank as a DNA barcode for future work. A Blast search of the ITS sequence data in GenBank reveals an affinity with *Chaetomella* and *Pilidium*. Based on previous analyses using nSSU rDNA, these two coelomycetous genera along with *Sphaerographium* and others form a recently discovered lineage in the *Leotiomycetes*, *Ascomycota*¹. It is presumed that *S. nyssicola* and the other species classified in the genus are saprobic. Significantly more sampling is needed to gain a better understanding of this genus. However, this information is more likely to come from chance encounters like the present one than directed efforts due to the difficulty in obtaining fresh collections³.

References. ¹Rossman AY, Aime MC, Farr DF, Castlebury LA, Peterson KR, Leahy R. 2004. The coelomycetous genera *Chaetomella* and *Pilidium* represent a newly discovered lineage of inoperculate discomycetes. *Mycological Progress* 3: 275–290. ²Verkley GJM. 2001. On *Sphaerographium petiolicola* and a new species, *S. tenuirostrum*, taxa from a rarely collected genus of coelomycetes. *Mycologia* 93: 205–211. ³Verkley GJM. 2002. A revision of the genus *Sphaerographium* and the taxa assigned to *Rhynchophoma* (anamorphic Ascomycetes). *Nova Hedwigia* 75: 433–450.

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