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## TWO HYPHOMYCETES ON LITTER IN STAGNANT WATER FROM BRITAIN

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During a survey of aero-aquatic hyphomycetes occurring on decomposing leaves and wood submerged in stagnant water in different parts of Britain, we have isolated two species. One is a new species of *Camposporium*; the other is *Sporidesmium flexum* Matsushima, a new record for Britain.

### *Camposporium hyalinum* sp. nov. (Fig. 1)

Coloniae hyalinae vel candidae, postea flavae. Mycelium hyalinum, immersum vel superficiale. Conidiophora hyalina sine ramis, recta vel curva, 10-40 × 4-6 μm. Cellae conidiogenae terminales, polyblasticae, denticulatae, ad 6 denticulos. Conidia solitaria, holoblastica, hyalina cum 2-4 (-6) septis, 20-76 μm longis cum appendice, × 3-5 μm latis, cylindrica vel fusiformia cum appendice filiformes.

In cupula submersa *Fagi sylvaticae*, Waggoners Wells, Surrey, Anglia, mensae Junio, 1979. Specimen in Herb. Exr. No. 3608 typus est (IMI 246523).

Colony growth rate on 0.1% malt-extract agar 6 mm diam in 2 weeks at 15 °C. Colonies hyaline to glistening white, becoming pale yellow with age;

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reverse white to pale yellow. Mycelium hyaline mostly immersed or partly superficial. *Conidiophores* macronematous, mononematous, hyaline, unbranched, straight or irregularly bent, 10-40 × 4-6 μm. *Conidiogenous cells* integrated, terminal, sympodial, polyblastic, denticulate, with up to six denticles, each denticle a narrow cylindrical pedicel. *Conidia* solitary, acropleurogenous, holoblastic, hyaline, 2-4 (-6) septate, 20-75 μm long (including appendage) and 3-5 μm wide, cylindrical to fusiform with a long filiform appendage at the apex, 0.5-1.5 μm wide and a narrow truncate base which usually bears the remains of a denticle.

The genus *Camposporium* was established by Harkness in 1884 with *C. antennatum* as the type species. Hughes (1951) transferred *Bactrodesmium caulicola* (Corda) Grove var. *pellucidum* to *C. pellucidum* (Grove) Hughes and described a new species, *C. cambrense*. In 1964, Rao & Rao added three new species to the genus from India, namely *C. indicum*, *C. hyderabadense* and *C. microsporium*. Dudka (1966) described *C. aquaticum* from USSR as a new species on decaying skeletonized leaves of

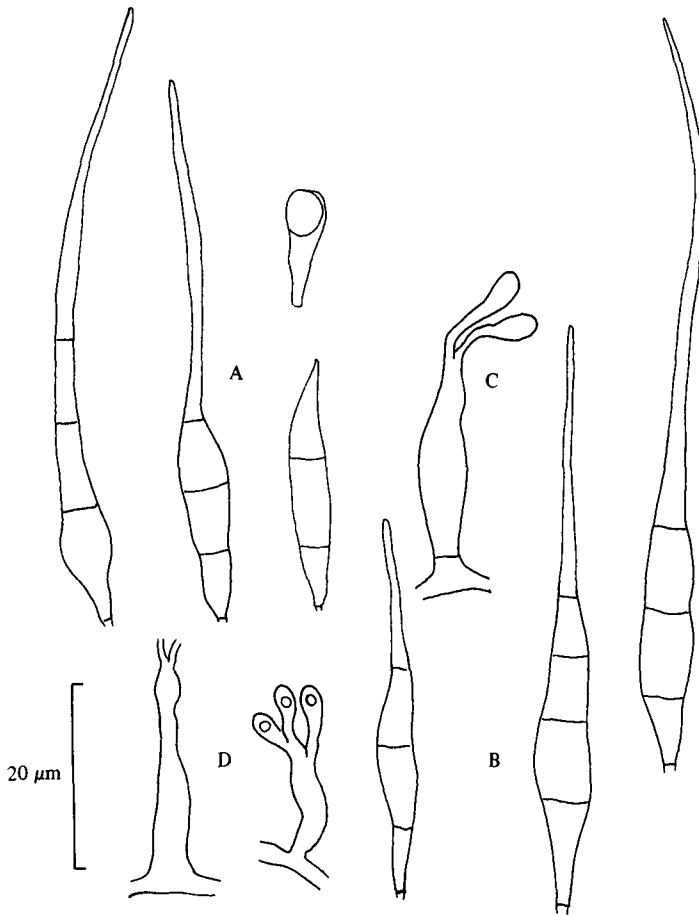


Fig. 1. *Camposporium hyalinum* Abdullah ( $\times 2000$ ). (A-B) Detached conidia; (C-D) conidiophores and conidiogenous cells.

various trees in water. Ichinoe (1971) described several species of *Camposporium* from Japan including *C. japonicum* from leaf litter of different plants. *C. scolecosporum* has been described by Matsushima (1971) from Papua New Guinea. Shearer (1974), during her studies on the distribution of wood-inhabiting Ascomycetes and fungi imperfecti in the Patuxent River, Maryland, U.S.A., collected *C. marylandicum* from submerged balsa wood in the fresh water portion of the river. Ellis (1976) reported *C. laundonii* on dead rose stems from New Zealand.

*Camposporium hyalinum* is very near to *C. marylandicum* Shearer in having a single terminal appendage and hyaline conidia. However, the

conidia of *C. marylandicum* have more septa (5-10) at maturity and the conidiophores are much narrower than those of *C. hyalinum*.

**SPORIDESMIUM FLEXUM** Matsushima, *Icones microfungorum a Matsushima lectorum* (Kobe), 136 (1975). (Fig. 2)

*Colonies* dark blackish brown to black, effuse, often hairy, mycelium superficial, or immersed in natural substrate. *Conidiophores* macronematous, mononematous, unbranched, straight or flexuous, dark brown, often percurrent,  $35-150 \times 3-4.5 \mu\text{m}$ . *Conidiogenous cells* monoblastic, integrated, terminal. *Conidia* solitary, dry, acrogenous, smooth, curved like a boomerang, dark brown to black,

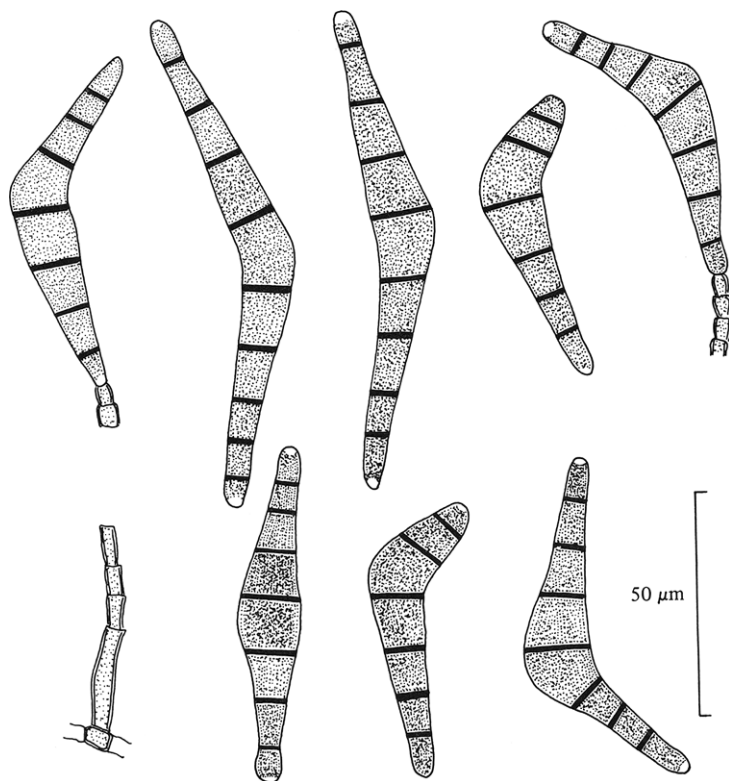


Fig. 2. *Sporidesmium flexum* Matsushima ( $\times 1000$ ). Conidiophore and conidia.

60–100  $\times$  10–15  $\mu\text{m}$ , transversely septate, with 6–9 septa, mid cells wider than the rest, conico-truncate at the base.

*Specimens examined.* On submerged *Thuja plicata* foliage in small pond, Snowdonia National Park Field Centre, near Bettws-y-Coed, North Wales, 24 May 1979, Herb. Exr. No. 3609. Culture derived from the type specimen: IMI 246524.

The fungus was described from Japan in 1975, on a rotting leaf of *Ficus erecta*. We have isolated it from decaying *Thuja plicata* foliage collected from the bottom of a small artificial pond. The material was washed in tap water and incubated in a damp chamber for about 2 weeks at 15°. On the plant material, the fungus developed abundant dark-brown conidia. These conidia, when transferred to 0.1% malt-extract agar, germinated readily, sending out germ-tubes from both end cells.

Colonies on 0.1% MEA brown, effuse, hairy with reverse dark brown to black. Sporulation occurred after 3 weeks' incubation at 15° under a continuous light source.

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