

*Myiophagus characeus* Kiran et Dayal, sp. nov.

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An unidentified species of fungi was reported from ponds of Varanasi (India) during the routine examination of the leaf litter decomposing organisms.

**Key words:** *Myiophagus*, *Achlyogetonaceae*, *nova species*.

During the routine examination of the litter decomposing organisms in ponds of Varanasi (India) an unidentified species of fungi was found. It was characterized by septate holocarpic thallus whose sporangia separated at maturity and produced posteriorly unflagellate planospores. Sexual reproduction was not reported. The fact that resting sporangia were not observed made identification of the species difficult. The aforementioned characteristics indicated that the species in question should be included in the family *Achlyogetonaceae*. The monotypic genus *Myiophagus* was placed in the above family by Sparrow (1942). It is interesting that isolated species was only observed in the sporangial stage. We described the fungus found in Varanasi as *Myiophagus characeus* belonging to the aforementioned genus (Fig. 1).

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**Diagnosis.** Thallus elongatus, saepe constrictus, septatus transit intervalis inaequalibus, in zoosporangia evolvens. Zoosporangia ( $130 \times 100 \mu\text{m}$ ) nonnulla et exitum papillas habent quae in planosporis primis evolvent. Planosporae ( $2,5 \mu\text{m}$ ) ex solutione papillae ( $35 \times 5 \mu\text{m}$ ) apicis evadunt sunt: bitunicatae, vesicula vel tegumento cinctae, planosporas gigantes. Fusio planosporum magnas structuras biflagellata formas animadversa est. Reproductio sexulalis non observata est.

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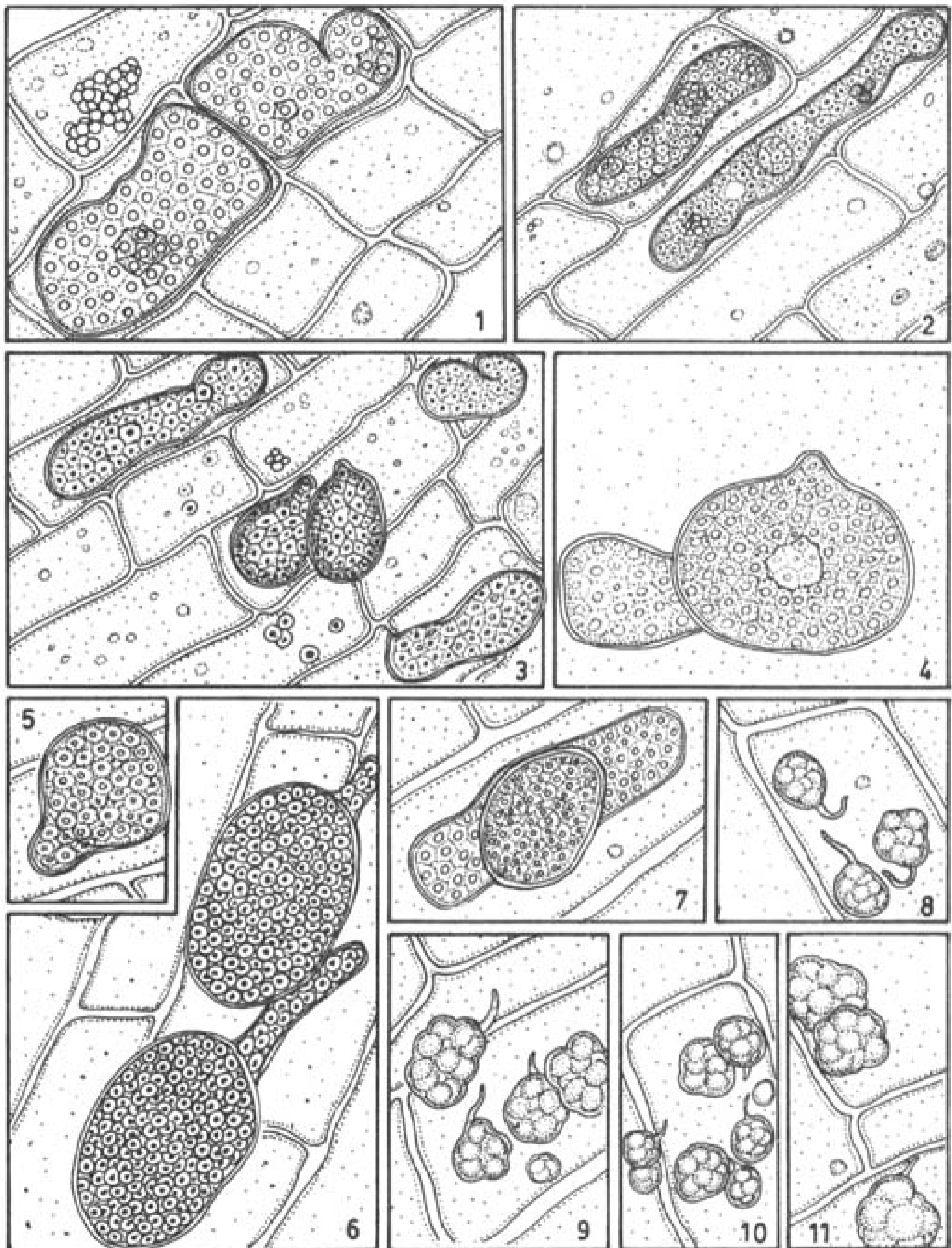


Fig. 1. *Myiophagus characeus* Kiran et Dayal, sp. nov.

1-2 — stages in the development of the thallus; 3 — later stage of development, thallus constricting; 4 — fully grown zoosporangia with planospores; 5 — zoosporangium with exit papilla; 6 — two zoosporangia, one with fully developed papilla; 7 — incipient resting sporangium; 8-10 — stages in the development of planospores; 11 — paired planospores; (magn: 1, 4, 7-11  $\times$  600; 2, 3, 5, 6  $\times$  300)

Tallus elongate, frequently constricted, becoming septate at irregular intervals, developing into zoosporangia. Zoosporangia ( $130 \times 100 \mu\text{m}$ ) having one to several exit papillae, developing into planospores initiales. Planospores ( $2,5 \mu\text{m}$ ) escape by the deliquescence of the papillae ( $35 \times 5 \mu\text{m}$ ) tip. Formation of resting spores was clearly observed: double wall surrounded by a vesicle producing planospores. Fusion of planospores forming large biflagellate structures was noted as well. Sexual reproduction was not observed.

Holotype isolated from decomposing litter of *Chara* plants in Varanasi on Oct. 1990 has been deposited in HCIO, New Delhi (India 30507).

We were not able to classify the isolated species as belonging to *M. ucrainicus*, which is fully known from the resting spores stage. This problem did not escape the notice of K a r l i n g (1948). In this opinion the structure of planospores and the appearance of the content of the zoosporangia of *M. ucrainicus* during sporogenesis were fairly similar to those of some members of the *Blastocladales*. Nevertheless, the above author retained the genus *Myiophagus* provisionally in the family *Achlyogetonaceae*. Thus the taxonomic position of the above genus and both species under discussion is still questionable. The biology of these species is also worthy of notice. *Myiophagus ucrainicus* has been reported to parasitize pupa, larvae and bodies of dipterous and scale insects in the Ukraine (W i z e 1904) and North America (T h a x t e r 1903; K a r l i n g 1948; F i s h e r 1950). None of the aforementioned authors indicated that the specimens of this species decomposed plant material. We also observed the posteriorly uniflagellate planospores paired producing as a result of fusion, large biflagellate planospores. The phenomenon was observed by T h a x t e r (1903) as well. In view of these facts it was established that isolated species can be regarded as a member of the genus *Myiophagus*.

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S t r e s z c z e n i e

Opisano nowy gatunek grzyba znalezione go w Indiach na szczątkach *Chara* sp. i wskazano na jego przynależność do rodziny *Achlyogetonaceae*.