

Ribosomal DNA phylogenies reveal that *Isthmolongispora* is polyphyletic and proposal new species of this genus

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Species of *Isthmolongispora* was described by Matsushima 1971, which have sympodially proliferating conidiophore and conidia with isthmus connection, *Isthmolongispora minima* was type species. There were 12 species have been described, *I. intermedia* have three to four cells conidia. *I. minima*, *I. basitruncata*, *I. ampulisformis*, *I. rotunda* and *I. geniculata* Nawawi 1988 have two cells conidia. *Isthmolongispora quadricellularia* was 5-6 cells conidia. *Isthmolongispora valiabilis* was 4-13 cells. *Isthmolongispora quadricellularia* was 5-6 cells conidia. *Isthmolongispora lanceata* was 14-22 cells conidia. Among 12 known *Isthmolongispora* species, conidia cells of *I. asymetrica* were unknown and *I. briamifera* have two arms. During the investigation of Viet Nam microbe, eleven *Isthmolongispora*-like isolated were isolated from fallen leaves. Morphological identification they were belonged to: *I. valiabilis* (3 strains), *I. ampulisformis* (5 strains), *I. geniculata* (one strain), *I. rotunda* (one strain) and a novel species: *Isthmolongispora flexousa* (3-4 cells, bending conidia). When determine the phylogeny position of these fungi base on 18S and 28S rDNA sequence analysis, the results showed that these *I. minima*- like were placed in 3 difference class: *I. minima* group (included *I. valiabilis* and *I. minima* P037) was sit in Leotiomycetes; the new species *I. flexousa* and *I. rotunda* were sited in Sodarionomycetes and *I. ampulisformis* group (included *I. ampulisformis* and *I. geniculata*) was sit in separated single clad which should be a new class of the Acomyocetes.

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