

## MORPHOLOGY, PATHOGENICITY AND PARTIAL SEQUENCING OF rDNA REGION OF *Ceratorhiza hydrophila* ON RICE FROM IRAN \*

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### Abstract

*Ceratorhiza hydrophila* is frequently isolated from rice sheath spot in paddy rice of Guilan province. In this study, morphology, pathogenicity and its phylogenetic affinities based on rDNA sequence data were studied. Results revealed that the fungus can infect rice plants and cause small yellow to pale brown spots on the leaf sheaths one week after the inoculation. On PDA colonies were white at the beginning and were eventually changed to brown, with visible growing rings. Sclerotia were usually round, regular, very small, measured 275-737.5 µm, and were formed on the surface of Petri dishes four days after the cultivation. They were initially white, and then changed to buff or blackish brown. Mycelial cells were 3.75-7.5 × 37.5-192.5 µm. To study phylogenetic position and molecular identification, the 530 bp of rDNA ITS region was sequenced. Results showed that *C. hydrophila* is closely related to *Rhizoctonia* species rather than other *Sclerotium* taxa. These results are consistent with the morphology of colony and sclerotia of this fungus. This is the first report of the pathogenicity of this fungus on rice from Iran.

**Keywords:** *C. hydrophila*, ITS rDNA, Guilan, Pathogenicity, Phylogenetic analysis, Rice.

See Persian text for figures and tables (Pages ۴۱۱ -۴۱۵ ).

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