

## STUDY ON SEXUAL FERTILITY AND GENETIC DIVERSITY OF *Magnaporthe salvinii*, CAUSAL AGENT OF RICE STEM ROT IN NORTHERN IRAN \*

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### Abstract

Fifty one monoconidial isolates of *Nakataea sigmoidea* anamorph of *Magnaporthe salvinii*, the causal agent of rice stem rot, collected from rice fields in Guilan and Mazandaran provinces were crossed in order to determine mating type alleles on Sach's agar medium in vitro. Moreover, genetic diversity of 20 *M. salvinii* isolates was analyzed using ERIC and BOX primers by rep-PCR. In this research, mating types of 37 isolates (72.55%) were determined as *MATx1* and 14 (27.45%) as *MATx2* and most of the isolates were highly fertile. Results of DNA fingerprinting indicates the existence of five DNA fingerprinting groups which consist of 19 haplotypes within 20 isolates, showing high level of genetic diversity in the fungus population.

**Keywords:** *MAT* alleles, Anamorph, Rice, Perithecium, Teleomorph.

See Persian text for figures and tables (Pages 107-119).

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