



ITS barcoding *Pythium* species causing eye infection

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Objectives To use a PCR and Sanger sequencing method for identification of *Pythium* species isolated from patients with fungal keratitis.

Introduction *Pythium* spp., especially *P. insidiosum* is a fungus-like pathogen causing severe diseases of skin, eye, blood vessel, can spread to multiple organs, losing the infected organ or death is always an outcome. Rapid identification of the fungal species is important to decelerate the outcome.

Results Seven strains were *P. insidiosum*, two strains were *P. periculosum*, a rare species for eye infection. ITS analyses could produce barcoding gaps among *Pythium* species and closely related genera. Intraspecific distances of species in *P. insidiosum* complex i.e *P. insidiosum*, *P. periculosum* and *P. aphanidermatum*, were lower than their interspecific distances.

Conclusion ITS barcoding would be an appropriate tool for use in routine as another gold standard method for *Pythium* species identification.

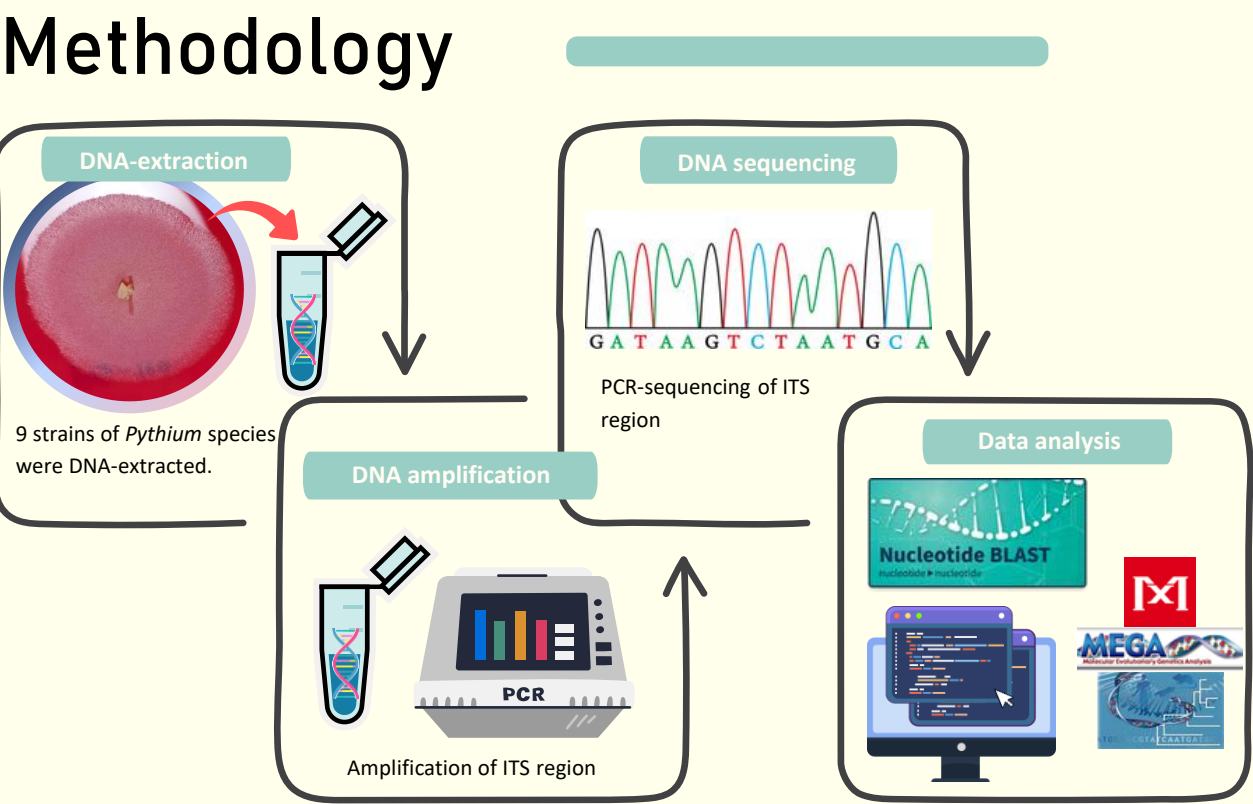


Figure 1: NJ tree of ITS: 9 *Pythium* + other types & references, MUSCLE aligned, T93+G model, ≥ 50% 1,000 Bootstrap nodes, T = Type material

