

Molecular Characterization of *Saprolegnia* SPP. Infesting Rainbow Trout in Hatcheries of Kashmir-Himalaya

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Abstract—A total of 50 and 95 infected samples were taken during the present study from the two main trout farms i.e. Laribal trout farm and Kokernaag trout farm from October 2013 to March 2014. Wet mount from infected lesions showed masses of mature and immature sporangia filled with spores. Hyphae appeared profusely branched, aseptate and multinucleate. The colonies on fungal agar at 37°C appeared with cysts of long hairs, whitish in color that finally turned blackish. The morphological characteristic features of the fungus confirmed it as *Saprolegnia*. DNA was isolated from the infected sample. The number of amplified DNA fragments obtained by the primers ranged from 380-1800bp. RAPD profiles obtained revealed negligible genetic variation among the isolates. Only one group could be established indicating that the group of closely related strains having high degree of homology is present.

Keywords: *Hyphae, Parasitica, Saprolegnia spp. and Trout.*