List of Tables

Table 1: The major habitats of some actinomycetes taxa.
Table 2: Actinomycete enzymes and their source.
Table 3: Pretreatment of samples to obtain desired actinomycetes.
Table 4: Media for selective isolation of actinomycetes.
Table 5: Antibacterial agents used for the selective isolation of actinomycetes.
Table 6: Major constituents of cell wall types of actinomycetes.
Table 7: Distribution of cell wall types and whole cell sugar patterns in the genera of actinomycetes.
Table 8: Studies on the enzymatic activities of actinomycete isolates.
Table 9: Physicochemical characteristics of Rankala Lake (R) and Kalamba Lake (K) water.
Table 10: Range and average of physicochemical parameters in Rankala Lake and Kalamba Lake.
Table 11: Higher values of the physicochemical parameters recorded in different seasons.
Table 12: Actinomycete population of Rankala (R) and Kalamba (K) Lake water samples on different media.
Table 13: Relative population of actinomycetes in total microbial population in Rankala Lake (R) and Kalamba Lake (K) water.
Table 14: Average values of microbial population, its percent distribution in Rankala Lake and Kalamba Lake.
Table 15: List of identified actinomycete isolates from Rankala Lake water.
Table 16: List of identified actinomycete isolates from Kalamba Lake water.
Table 17: Generic distribution of Rankala Lake actinomycete isolates.
Table 18: Generic distribution of Kalamba Lake actinomycete isolates.
Table 19: Distribution of actinomycetes in Rankala and Kalamba Lakes.
Table 20: Distribution of biochemically active actinomycetes in Rankala and Kalamba Lakes.
Table 21: Generic distribution of actinomycetes in Rankala and Kalamba water bodies based on biochemical activity.
Table 22: Protein released, weight loss, and microscopic changes during degradation of human hair by *Streptomyces fradiae* in static and shaking conditions.

Table 23: Distribution of aquatic actinomycete isolates showing resistance to various inhibitory agents.

Table 24: Generic distribution of actinomycetes based on resistance to various inhibitory agents.

Table 25: Distribution of antagonistic actinomycetes in Rankala and Kalamba Lakes.

Table 26: Percentage of Rankala Lake actinomycetes showing antagonistic activity against test organisms.

Table 27: Percentage of Kalamba Lake actinomycetes showing antagonistic activity against test organisms.

Table 28: Distribution of actinomycetes antagonistic to various groups of organisms in Rankala Lake and Kalamba Lake.

Table 29: Generic distribution of antagonistic actinomycetes against different test organisms.

Table 30: Generic distribution of actinomycetes antagonistic to various groups of organisms.

Table 31: Effect of antagonistic actinomycetes on bacterial population of Rankala Lake water.

Table 32: Effect of antagonistic actinomycetes on pathogens isolated from lake water by agar overlay method.

Table 33: Effect of antagonistic actinomycetes on pathogens isolated from lake water.

Table 34: Interaction effect of *Streptomyces violaceusniger* and *Fusarium oxysporum* f. *lycopersici* and appearance of wilting in tomato plants.