

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Based on the results of this study, the symbiotic bacterium associated with the entomopathogenic nematode of the genus *Heterorhabditis* was identified as *Chromobacterium rhizoryzae* strain LAM1188, with a sequence similarity of 98.54% and a bootstrap value of 71. *Chromobacterium rhizoryzae* strain LAM1188 is considered a newly reported species or strain that is capable of forming a symbiotic association with *Heterorhabditis* sp.

5.2. Recommendations

Further studies are required to comprehensively characterize the bacterial species identified in this research. This bacterium has considerable potential as a biological control agent; therefore, additional in vitro pathogenicity assays as well as analyses of secondary metabolites, including both volatile and non-volatile compounds, are necessary to confirm and evaluate its biocontrol capabilities.