

**Characterization of symbiotic bacteria associated with *Steinernema abbasi* (strain 507),
S. siamkayai (strain 157) and *Heterorhabditis bacteriophora* (strain 1743)**

A.R. Kazmi, K.A. Tabassum and F. Shahina*

*National Nematological Research Centre,
University of Karachi, Karachi-75270, Pakistan*

*Corresponding author's e-mail: shahinafayyaz@gmail.com

Abstract

During phenotypic and biochemical observations three different species of bacteria viz., *Xenorhabdus indica*, *X. stockiae* and *Photorhabdus luminescens luminescens* were reported for the first time from Pakistan. They were associated with the infective stage juveniles of the entomopathogenic nematodes *Steinernema abbasi*, *S. siamkayai* and *Heterorhabditis bacteriophora*, respectively.