

## EFFECT OF SALT AND TEMPERATURE STRESS ON SURVIVAL AND INFECTIVITY OF INFECTIVE JUVENILES OF ENTOMOPATHOGENIC NEMATODES

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### Abstract

Several species of entomopathogenic nematodes of the genera *Heterorhabditis* and *Steinernemawere* isolated from the different climatic regions of Pakistan. Advantage of such native isolates includes physiological traits that are adapted to local ecological conditions and are helpful for biological control. The ability of infective juveniles (IJs) of these isolates was screened to find out the survival and infective ability against insects in sea water (salinity upto 38 ppt) with elevated temperatures in aqueous suspension. IJs of *S. pakistanense* isolates 98 AB, 15 AM and BS 266 tolerated high temperatures better in sea water than distilled water. At least 94% survived at 38° C but their infectivity was not significantly affected by salinity upto 38 ppt and temperature upto 38°C. One isolate of *S. feltiae* (Ao5) was susceptible to high temperatures and did not survive at 36°C in both sea and distilled water. IJs of *H. indica* (isolate 7 ma) tolerated more salinity at high temperature (40°C) in seawater than in distilled water but their infectivity was not more than 15 %. The other isolate of *H. indica* (32 NR) was more temperature tolerant and survived at 40°C in both media.