

***Steinernema guangdongense* sp. n. (Nematoda: Steinernematidae),
a new entomopathogenic nematode from southern China with a
note on *S. serratum* (*nomen nudum*)**

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Abstract

A new species of entomopathogenic nematode, *Steinernema guangdongense* sp. n. was recovered from a soil sample collected from Jijia town in the western part of Guangdong province, the Peoples Republic of China during a survey for entomopathogenic nematodes in 2001. The nematode can be separated from other described species of *Steinernema*, by morphological, morphometrical characteristics of different stages of the nematode, by crossbreeding tests and by characterizations and phylogeny of DNA sequences of either a partial 28S or the internal transcribed spacer regions of rDNA. This nematode is closest to *S. longicaudum*. It can be distinguished from that nematode by characteristics of different stages. For infective juveniles, although the body length is almost similar (1055 μ m compared to 1063 μ m), body diameter of the new species is larger; values of EP (length from anterior end to excretory pore), NR (length from anterior end to nerve ring) and a body length/body width ratio are smaller, and tail with dorsal constriction. For male, the new species has longer spicule, not well curved, spicule head shorter, shaft not prominent or absent and spicule tip not suddenly tapered as shown in *S. longicaudum*. Also, the ratios SW (spicule length/anal body width) and GS (gubernaculum/spicule) are smaller. For female, the presence of a small double flapped epiptygma, a small projection on dorsal side of the tail tips and prominent post-anal swelling is typical for the new species.

Key words - 28S rDNA sequence; entomopathogenic nematode; identification; rDNA ITS sequence; *Steinernema guangdongense*; taxonomy