

# Parasitic and Associated Nematodes of Bark Beetles in Bulgaria

*Sevdan Nedelchev*<sup>1</sup>, *Danail Takov*<sup>2</sup>, *Daniela Pilarska*<sup>2\*</sup>

<sup>1</sup> Dragan Tsankov Blvd., Department of Zoology and Anthropology, Faculty of Biology, Sofia University, 1164 Sofia, Bulgaria; E-mail: nedelchev@biofac.uni-sofia.bg

<sup>2</sup> Institute of Zoology, Bulgarian Academy of Sciences, Sofia 1000, Bulgaria; E-mails: dtakov@zoology.bas.bg, dpilarska@zoology.bas.bg

**Abstract:** Parasitic and associated nematodes of *Ips typographus*, *I. sexdentatus* and *I. acuminatus* were investigated. Bark beetles were collected from seven sites in Vitosha, Malashevskia and Rhodope Mountains. Six parasitic and two associated nematode species were recovered. Seven species represent new geographic records. The parasitic *Contortylenchus diplogaster*, *Parasitylenchus dispar* and the associate *Cryptaphelenchoides macrobulbosus* were observed in *I. typographus*. *Ips sexdentatus* was parasitized by *Parasitorhabditis subelongati*, *Parasitaphelenchus sexdentati* and *Cryptaphelenchus diversispicularis*. Furthermore the associated nematode *Rhodolaimus pini* was detected in the same beetle species. One parasitic nematode *Contortylenchus acuminati* was recovered from *I. acuminatus*.

**Key words:** Bulgaria, *Ips typographus*, *I. sexdentatus*, *I. acuminatus*, nematodes