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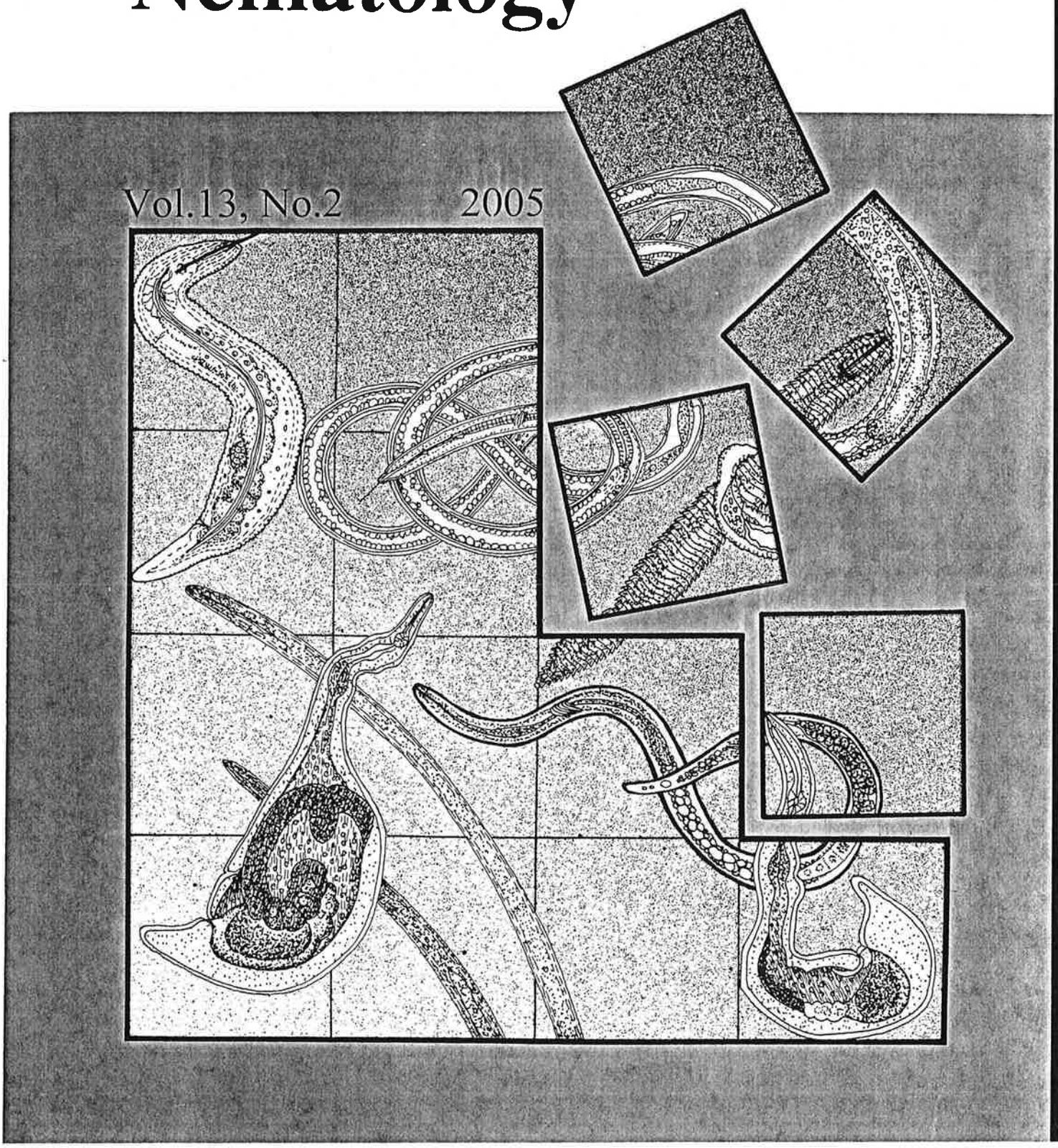

species of cockroaches: *Blaberus atropos, Blaberus boliviensis, Eublaberus posticus* (Blaberidae: Blaberinae), *Blatta orientalis, Neostylopiga rombifolia, Periplaneta brunnea* and *Shelfordella tartara* (Blattidae: Blattinae). *Leidynema delatorei* was only found in *Leucophaea maderae*, and *Leidynema portentosae* – only in *Gromphadorhina chopardi*, *Gromphadorhina portentosa* and *Gromphadorhina vanwerebeki* (Blaberidae: Oxyhaloinae). *Thelastoma* sp. was only found in *Periplaneta americana* (Blattidae: Blattinae). The representatives of *Severianoia* sp. were reported from *Archimandrita tesselata, Blaberus boliviensis* and *Blaptica dubia* (Blaberidae: Blaberinae). In total laboratory cultures of 21 species of cockroaches were investigated. Besides of three uninfected species *(Nauphoeta cinerea*, *Panchlora nivea* and *Schultesia lampyridiformis*), all other cockroach cultures were infected, though with highly variable parasite burden. Both cockroach species with few nematodes per host (e.g. *Shelfordella tartara* – 1,5 at average) and heavily infected ones (e.g. *Archimandrita tesselata* with 62,5 as mean number of nematodes per host) were reported. RFBR support 05-04-48140a. - **Laboratory of Entomology, Department of Plant protection, Tomsk State University, pr. Lenina, 36, Tomsk, 634050, Russia. E-mail: guzeyeva@mail.ru**

HAJIEGHRARI, B. [1], MOHAMMADI, M.[2], WAEYENBERGE, L. [3], KHEIRI, A. [2] & MAAFI, Z. T. [4]
Comparison of tea root lesion nematode, *Pratylenchus loosi* Loof, 1960 populations on tea growth area in Guilan province, Iran based on protein and isozyme profile and PCR.

The nematode, *Pratylenchus loosi* Loof, 1960 is considered one of the most destructive pests of tea plants around the world. A total of 15 representative populations of *P. loosi* were collected from various regions and compared using SDS-PAGE analysis of total soluble protein profile as well as native PAGE analysis of esterase isozyme profile. Further, the genomic expansion region of the rDNA gene (ITS-rDNA and D2/D3 LSU-rDNA) from various *P. loosi* populations were amplified using conventional polymerase chain reaction (PCR). PCR-RFLP (restriction fragment length polymorphism) was carried out on amplified DNA products from *P. loosi* populations using specific endonucleases. The genomic region of D2/D3 LSU-rDNA from 13 representative populations was cloned in pGEMT cloning vector and subsequently sequenced. SDS-PAGE analysis revealed a homogeneous protein pattern among all 15 populations of *P. loosi*. Esterase (EST) isozymic profile showed the existence of two alleles of a and b is responsible for encoding for EST. While a number of *P. loosi* populations exhibited allele a and others showed allele b and a few possessed both alleles. PCR amplification of the genomic region of ITS-rDNA generated a 1250 bp DNA band which upon digestion with *Dra*I, *Hind*III, *Mbo*I, *Hin*6I, *Hae*III or *Alu*I yielded a similar banding pattern for all 15 P. loosi populations. Likewise, endonuclease digestion of a 787 bp DNA fragment amplified from D2/D3 LSU-rDNA genomic region with *Dra*I, *Hind*III, *Mbo*I, *Hinf*I *Hae*III, AluI, *Hind*III or PstI produced an identical restriction pattern in all 15 populations of *P. loosi*. Sequence alignments of D2/D3 LSU-rDNA showed that despite single or double base mismatches in P(1), P2(2), P4(1), P5(1), P7(1), P6(1) and P10(2) populations, there seems to be a close phylogenetic relationship among P. loosi popluations from Iran and between Iranian populations and that of population reported from Sri Lanka. – **[1]Department of Plant Production, Moghan Junior College of Agriculture, University of Mohaghegh – Ardabili, Ardabil, Iran; [2]Department of Plant Pathology & Entomology, College of Agriculture, University of Tehran, Karaj, Iran; [3]Agricultural Research Centre, Department of Crop Protection, Burg. Van Gansberhelaan, 96, 9820 Merelbeke, Belgium; [4]Plant Pests and Diseases Research Institute, AREEO, Ministry of Agriculture P.O. Box 1454-Tehran, 19395, Iran.**

HANDOO, Z. A., & ELLINGTON, D. M. S. **The value of the USDA nematode collection and its database for taxonomic and systematic research.**

The United States Department of Agriculture Nematode Collection (USDANC) at Beltsville, Maryland, is one of the largest and most valuable international resources for nematode taxonomic research and identifications. It is widely used by scientists throughout the world to resolve various taxonomic and nomenclatural problems; it also provides data on nematode hosts, occurrence, and distribution worldwide. Because urban expansion often makes it impossible to collect additional type specimens of a species from the original type locality, the Collection serves as an asset for taxonomic revision of previously described taxa. In the United States, nematology research began in the late 1800s, and for many years the collections of USDA nematologists remained in individual personal collections. In 1960, with type specimens of 18 species, A. Morgan Golden officially established the USDANC, creating an organized, unified repository of important specimens. The USDANC includes mounted specimens collected by pioneer workers over 100 years ago, such as N. A. Cobb's original 1890 material of *Mononchus longicaudatus*. The collection also includes Thorne's Collection of 6,600 slides with many original types, Steiner's Mermithid Collection of 3,400 slides, and Nickle's insect-parasitic nematode collection. The Collection consists of several constituent divisions and includes over 40,000 permanent slides and vials and 34,300 species entries in its searchable database, which is available on the Web at http://www.nem.barc.usda.gov/database/search.cfm. The type collection is one of the constituent divisions

and is constantly monitored and maintained. Because only ten percent of the species of animals, plants, and microorganisms on the planet have been named, taxonomic collections such as the USDANC are priceless in scientific value. - [1]Nematology Laboratory, USDA, ARS, Henry A. Wallace Beltsville Agriculture Research Center, Beltsville, MD 20705, USA. E-mail: handooz@ba.ars.usda.gov

HANDOO, Z. A.[1], & KHAN, A.[2] A key and diagnostic compendium to the species of the genus *Merlinius* Siddiqi, 1970 (Nematoda: Telotylenchidae), with description of one new species of *Merlinius*.

An identification key to 31 valid species of *Merlinius* is given. A compendium of the most important diagnostic characters for use in identification of species is included as a practical alternative and supplement to the key. The diagnosis of *Merlinius* is emended, and a list of all the valid species of the genus, their synonymies, and species inquirendae is given. The characters most useful for separating species include body and stylet lengths, shape of head, stylet knobs, tail and tail terminus, number of head and tail annules, nature of lateral field, position of vulva (V%), and T/ABW ratio in females. Also useful are length and shape of spicules and gubernacula in males. Photomicrographs of diagnostically important morphological features are given that compliment the key and compendium. A new *Merlinius* sp. was found around the soil and roots of date palm (*Phoenix dactylifera* L.) from Khuzdar, Baluchistan Province, Pakistan. This new species resembles *M. bilqeesae* Khan & Khan, 1995 and *M. montanus* Maqbool & Shahina, 1987 but differs from these species by the following: body and stylet length, shape of head, median bulb, tail and tail terminus, number of head and tail annules, position of phasmid and by their vastly different habitat. Because this species is limited in distribution, its economic importance in date palm and other cultivated crops within the region is not known. - **[1]Nematology Laboratory, USDA, ARS, Henry A. Wallace Beltsville Agriculture Research Center, Beltsville, MD 20705, USA; [2]Crops Disease Research Institute, PARC, University of Karachi, Karachi-75270, Pakistan. E-mail: handooz@ba.ars.usda.gov**

HOLOVACHOV, O. Postembryonic development in nematode family Plectidae (ordo Plectida).

Nematode postembryonic development consists usually of four juvenile stages. In some nematode taxa the first (*Xiphinema americanum* group, some Diplogasteromorpha and Tylenchomorpha) or even second (some animal parasitic nematodes) moult occur inside the egg, resulting in only three or two post-hatching juveniles. The analysis of the developmental stages of seven species of the family Plectidae (*Anaplectus granulosus, A. grandepapillatus, Plectus parietinus, P. australis, P. antarcticus, P. decens* and *P. communis*) was based on differences in measurements of growing and moulting specimens; structure of the cheilostom, basal bulb, valvular apparatus, alteral alae, spinneret, gonad primordia; number and arrangement of somatic sensilla and epidermal glands. It revealed two different modes of postembryonic development. Species of the genus *Anaplectus* and of *Plectus parietinus* group (*parietinus, australis, antarcticus*) have four juvenile stages, while *P. decens* and *P. communis* (like literature data for *Tylocephalus auriculatus* and *Ereptonema arcticum*) have only three morphologically distinct types of juveniles, here considered as representing three juvenile stages. Moreover, juveniles of the first in all nine studied species were similar morphologically, thus supporting the assumption that there is no moult inside the egg before hatching in species with only three juvenile stages. Further observations are needed to reveal the peculiarities and mechanisms of the postembryonic development in other members of the family Plectidae. - **Department of Zoology, Biological faculty, Ivan Franko National University of Lviv, Hrushevsky str. 4, Lviv 79005, Ukraine. E-mail: zoomus@franko.lviv.ua**

IVANOVA, E. S. & SPIRIDONOV, S. E. Observations on world fauna of Drilonematoidea - nematode parasites of earthworms.

From world drilonematid fauna parasites of earthworms from East-Southern Asia are the better studied. They comprise the representatives of all taxa known, namely Drilonematidae, Ungellidae, Homungellidae, Scolecophilidae and Creagrocercidae. Though the more of Drilonematidae genera compared to Ungellidae is known ungellids outnumber the former. Monotypic families Scolecophilidae and Creagrocercidae are the least numerous whereas Homungellidae represented by two genera is of inter-medium position. All these parasites inhabit coelomic cavities of earthworms belonging mainly to families Megascolecidae and Moniligastridae which are the most widespread in the area. Until now, homungellids are recorded from this region only. The fauna of Australia and Oceania is much less known but seems to be similar to the fauna of Indochina. Parasitic nematodes of Lumbricidae distributed through Palearctic are much less frequent and represented by three genera of the least specialized family Drilonematidae. The largest genus *Dicelis* is parasitic only in lumbricids but representatives of both other genera *Filiponema* and *Mesonema* are also parasitic in tropical oligochaetes. Drilonematid parasites of African oligochaetes which belong to families Eudrilidae and Octochaetidae are represented by *Ungella* members and monotypic genera *Mbanema* and *Acanthungella* (both latter ones are characterised by presence of numerous somatic sensilla which is exceptional