

*Short note*

## Nematode types in the collection of the Institute of Zoology and Parasitology of the Academy of Sciences of Republic of Tadjikistan

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The nematode collection of the Institute of Zoology and Parasitology of the Academy of Sciences of Republic of Tadjikistan was established in the 1950s. Nematology research in Tadjikistan was initiated by the prominent nematologist Prof. Ekaterina S. Kirjanova, and subsequently by two of Kirjanova's students, T.S. Ivanova and N.I. Semikolenova. The latter significantly increased the basic knowledge of the composition, taxonomy, systematics and distribution of nematodes in Tadjikistan, especially nematodes of cereals and cotton, which are the two most important crops in the Republic.

Nematodes collected were mounted in glycerine-jelly according to Seinhorst (1959). Initially, nematodes from all ecological groups, eusaprobiotic, rhyzobiotic and phytoparasitic, were collected. Prolonged storage caused some slides to dry out, or the specimens became transparent. Many of the most important specimens have subsequently been re-mounted to preserve them.

During the 1970s an independent Laboratory of Phytonematology was established in the Institute of Zoology and Parasitology of the Academy of Sciences of Republic of Tadjikistan. Study of nematodes associated with agricultural crops and forests was considered a priority. Faunistic and taxonomic research was considered an obligatory pre-requisite for the development of nematode control measures in the Republic. For 15 years, Laboratory staff performed numerous scientific missions throughout the country, collecting nematodes in mountain, forest, desert, and valley ecosystems. Numerous new species were discovered and described. Other techniques for mounting nematodes were developed during this period. The nematodes were fixed in hot or cold 5% formaline, transferred to glycerine according to Seinhorst (1959) and mounted on slides sealed with a ring of paraffin-wax (De Grisse, 1969). The apical

and terminal sections of cysts and root-knot nematodes were embedded and mounted in glycerine-jelly.

Currently, the type (holotype, paratype and allotype) slides of 32 nematode species from 18 genera are deposited in the collection of the Institute of Zoology and Parasitology of the Academy of Sciences of Republic of Tadjikistan. Several type specimens are also deposited in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Institute of Zoology and Botany of the Estonian Academy of Sciences, Tartu, and the Institute of Zoology of the Turkmenistan Academy of Sciences. Most descriptions of these nematodes were prepared by Dr. T.S. Ivanova and co-authors, with five species being described by Dr. V.K. Kankina and 4 species by Dr. L.M. Dzhuraeva. Each slide is labelled with a collection number, type locality, date of collection, and the scientific names of host plants. The nematological collection also includes representatives of 425 different nematode species (186 of these are from plants) found during nematological surveys in Tadjikistan. A total of 9300 slides are deposited in the collection. The type specimens in the collection are here listed alphabetically with the following abbreviations used:

Holo = holotype;  
Allo = alltype;  
Para = paratype;  
f = female;  
m = male;  
j = juvenile;  
Accn = accession number.

### Catalogue of types

*acuminulata*, *Diphtherophora*. Juraeva, L. & Kankina, V.K. 1997. *Doklady Akademii nauk Respubliki Tadjikistan*. 40 (5-6): 18-21. Holo - f; Para - 10f, 8j. Accn. 331, 333, 363, 369, 370.

- alticola*, *Nothocriconema*, Ivanova, T.S. 1976. In: *Parasititseskie kornevye nematody. Semeistvo Criconematidae*. Leningrad, Nauka. 119. Para - 15f, 15m, 20j. Accn. 1400-1422.
- arenosus*, *Longidorus*. Kankina, V.K. & Ivanova, T.S. 1986. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 103 (2): 60-62. Holo - f; Allo - m; Para - 16f, 4m, 27j. Accn. 749-785.
- capitatus*, *Pratylenchus*. Ivanova, T.S. 1968. *Nematody zernovykh kultur Zeravshanskoi doliny Tadjikistana*. Donish, Dushanbe. 45-46. Para - 10f, 3j. Accn. 932-951.
- capitonis*, *Merlinius*. Ivanova, T.S. 1983. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 90 (1): 44-45. Allo - 1f; Para - 8f, 10m, 44j. Accn. 576-605.
- cardiolata*, *Heterodera*. Kirjanova, E.S. & Ivanova, T.S. 1969. *Doklady Akademii nauk Tadjikskoi SSR* 12 (12) 59-62. Para - 4f. Accn. 231-233.
- caudata*, *Diphterophora*. Ivanova, T.S. 1958. *Tezisy dokladov nauchnoi konferentsii Vsesouznogo obshchestva gelmintologov*: 55-56. Holo - f; Para f, m. Accn. 78, 452, 1027.
- centaureae*, *Paranguina*. Kirjanova, E.S. & Ivanova, T.S. 1968. In: *Ushchelia Kondara*. Donish, Dushanbe. 2: 200-217. Para - 35f, 10m, 10j. Accn. 180-195.
- coronatus*, *Tigronchoides*. Juraeva, L. & Kankina, V.K. 1994. *Izvestiya Akademii nauk Respubliki Tadjikistan, Biol. Ser.* 134 (2-4): 31-34. Holo - 1f; Para - 10f, 3j. Accn. 382-390.
- cylindricaudatus*, *Tylenchorhynchus*. Ivanova, T.S. 1968. *Nematody zernovykh kultur Zeravshanskoi doliny Tadjikistana*. Donish, Dushanbe. 66-68. Para - 5f, 4j. Accn. 972-976.
- cylindricus*, *Acrobeles*. Ivanova, T.S. 1968. *Nematody zernovykh kultur Zeravshanskoi doliny Tadjikistana*. Donish, Dushanbe. 70-71. Para - 2f, j. Accn. 1665.
- discoideus*, *Kirjanovia*. Ivanova, T.S. 1969. *Doklady Akademii nauk Tadjikskoi SSR* 2 (8): 64-66. Para - 26f, 3m, 2j. Accn 237-253.
- ferulae*, *Anguina*. Ivanova, T.S. 1977. *Doklady Akademii nauk Tadjikskoi SSR* 20 (1): 65-69. Para - 10f, 2m, 36j. Accn. 333-356.
- kirjanovae*, *Diphterophora*. Ivanova, T.S. 1958. *Tezisy dokladov nauchnoi konferentsii Vsesouznogo obshchestva gelmintologov*: 55-56. Holo - f; Para - 9f, 3j. Accn. 258, 259, 1006, 1045, 1055.
- kralli*, *Macroposthonia*. Ivanova, T.S. 1976. In: *Parasititseskie kornevye nematody. Semeistvo Criconematidae*. Leningrad, Nauka. 76. Para - 35f, 8j. Accn. 271-286.
- labiatus*, *Acrobeles*. Ivanova, T.S. 1968. *Nematody zernovykh kultur Zeravshanskoi doliny Tadjikistana*. Donish, Dushanbe. 65-66. Para - 17f, 16 j. Accn. 104-113.
- minuta*, *Diphterophora*. Ivanova, T.S. 1958. *Tezisy dokladov nauchnoi konferentsii Vsesouznogo obshchestva gelmintologov*: 55-56. Holo - f; Para - 3f, j. Accn. 262, 263, 277.
- mirabilis*, *Trichodorus*. Ivanova, T.S. 1977. In: *Kornevye nematody podotrjada Diphterophorina, perezostsiki virusov*. Leningrad, Nauka, 51-52. Para - f, 1m. Accn. 324, 325.
- montana*, *Paranguina*. Kirjanova, E.S. & Ivanova, T.S. 1968. In: *Ushchelia Kondara*. Donish, Dushanbe. 2: 200-217. Para - 20f, 10m, 5j. Accn. 1399.
- narsikulovi*, *Anatonchus*. Juraeva, L. & Kankina, V.K. 1994. *Izvestiya Akademii nauk Respubliki Tadjikistan, Biol. Ser.* 134 (2-4): 31-34. Holo - f; Allo - m; Para - 8f, 7m, 10j. Accn. 391-412.
- neohexagrammus*, *Merlinius*. Ivanova, T.S. 1978. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 73 (4): 35-46. Para - 9f, 4m, 7j. Accn. 350-369.
- olegi*, *Longidorus*. Kankina, V.K. & Metlitskaya, K.V. 1983. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 93 (4): 50-52. Holo - f; Allo - m; Para - 5f, 2m, 8j. Accn. 660-668.
- pamiricus*, *Tylenchorhynchus*. Ivanova, T.S. 1989. *Doklady Akademii nauk Tadjikskoi SSR* 32 (11): 785-788. Holo - f; Para - 26f, 7j. Accn. 832-853.
- quinqueseulus*, *Chiloplacus*. Ivanova, T.S. 1968. *Doklady Akademii nauk Tadjikskoi SSR* 11 (12): 54-56. Para - 11f, 6m, 3j. Accn. 256-270.
- sphaerocephalus*, *Scutylenchus*. Ivanova, T.S. 1982. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 86 (1): 23-25. Para - 16f, 3m, 13j. Accn. 1234-1246.
- tadshikistanica*, *Meloidogyne*. Kirjanova, E.S. & Ivanova, T.S. 1965. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 18 (1): 24-31. Para - 2f. Accn. 29, 52.
- tenera*, *Diphterophora*. Ivanova, T.S. 1980. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 81 (4): 94-96. Holo - f; Para - 9f, 2m, 1j. Acc. 2029, 2039, 2044, 2059.
- umbonatus*, *Scutylenchus*. Ivanova, T.S. 1982. *Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser.* 86 (1): 22-23. Holo - f; Allo - 1m; Para - 9f, 3m, 2j. Accn. 476-489.
- valicola*, *Nothocriconema*, Ivanova, T.S. 1976. In: *Parasititseskie kornevye nematody. Semeistvo Criconematidae*. Leningrad, Nauka. 137. Para - 32f, 10j. Accn. 292-323.
- variabilis*, *Scutylenchus*. Ivanova, T.S. & Schagalina, L.M. 1983. *Izvestiya Akademii nauk Turkmenskoi SSR, Biol. Ser.* 2: 60-62. Para - 7f, 10m, 5j. Accn. 551-561.

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*SSR, Biol. Ser. 2: 60-62. Para - 7f, 10m, 5j. Accn, 551-561.*

*varidentus, Tigronchoides. Ivanova, T.S. & Dzhuraeva, L. 1971. Izvestiya Akademii nauk Tadjikskoi SSR, Biol. Ser. 45 (4): 89-93. Holo - f; Para - 15f, 10j. Accn. 255-257.*

*varsobica, Paranguina. Kirjanova, E.S. & Ivanova, T.S. 1968. In: Ushchelié Kondara. Donish, Dushanbe. 2: 200-217. Para - 40f, 12m, 10j. Accn. 202-221.*

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