

Short note

# First record of the genus *Esocinema* Moravec, 1977 (Spirurida, Skrjabillanidae) in pike, *Esox lucius* L, in Russia

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Female parasitic nematodes belonging to the genus *Esocinema* Moravec, 1977 were found in pike, *Esox lucius* L., from the Ivankovsky Reservoir and upper reaches of the River Mologa, Tver Region, Central Russia. This is the first record of the occurrence of *Esocinema* sp. in Russia. The nematodes were present under the "tunica serosa" of the swimbladder in either a straight or coiled state. Specimens of *Esocinema* were fixed in a 3% formaldehyde solution in physiological saline (Bargallo fluid) and mounted in glycerine for study using a phase-contrast light microscope, or dehydrated in an ethanol series and acetone for SEM investigation.

A description of adult female *Esocinema* sp., based on 5 specimens examined by light microscopy and 2 by SEM observations is presented here.

Body length 14-23 mm; maximum width 54-66  $\mu$ m. Conical anterior end tapering toward apical mouth. Cephalic papillae arranged as 2 rings: external ring of 4 pairs of large submedial papillae and inner ring of 2 rudimentary lateral papillae (Figs. 1A-C, 2). Cephalic papillae of inner ring in some specimens within depressions on lateral surface of anterior end (Fig. 2). Pair of large amphids situated between papillary rings. Cephalic cuticle with complex internal pattern: 2 annular undulating thickenings encircling inner surface of body cuticle at the level of the middle of the buccal capsule and the anterior end of the oesophagus (Fig. 1A, B). Two thickened areas of cuticle also present, starting near the ventrolateral cephalic papillae and running anteriorly, touching the wall of the buccal capsule and returning to the level of the opposite dorsolateral papilla on the same side of the body (Fig. 1B,C). Buccal capsule 12-15  $\mu$ m long, slightly wider anteriorly than posteriorly,

maximum width 3  $\mu$ m. Wall of buccal capsule extending into anterior end of oesophagus. Oesophagus bipartite: anterior region 440-550  $\mu$ m long, muscular, with triradial lumen; posterior region 900-1300  $\mu$ m long, glandular. Nerve-ring 180-190  $\mu$ m from anterior end. Anal opening absent. Vulva at 4.8-7.4 mm from anterior end ( $V = 32-37\%$ ). Caudal end conical, slightly curved ventrally, with 2 phasmids. Pore of phasmids located in subventral position just posterior to middle of the tail. Caudal extremity with 5-7  $\mu$ m long single subterminal spike.

Uterus filled with eggs at different stages of embryonic development up to fully-formed juveniles. Juvenile body 870-1030  $\mu$ m long, with maximum diameter 18-20  $\mu$ m; anterior end with sclerotized 3  $\mu$ m long spear-like structure (Fig. 1D,E). Detail of anterior end of oesophagus and its junction with the spear-like structure not discernible. Two large, transversally elongate, amphids with fabiform orifices. Juvenile tail tip bifurcate (Fig. 1F).

The genus *Esocinema* contains a single species, *E. bohemicum* Moravec, 1977, and has been recorded only from the territory of former Czechoslovakia (Moravec, 1977, 1994) and from Hungary (Molnar & Szekely, 1998). The *Esocinema* sp. specimens described here differ from *E. bohemicum* in cuticle ornamentation at the cephalic end, the topography of the sensory structures at the cephalic end, and vulvar position ( $V = 32-37$  vs 9%). However, as males were not recorded the specimens are not described here as representing a new species. Also, it is possible that the Russian and Central European *Esocinema* specimens are conspecific, but this requires confirmation by examination and comparison with type-specimens

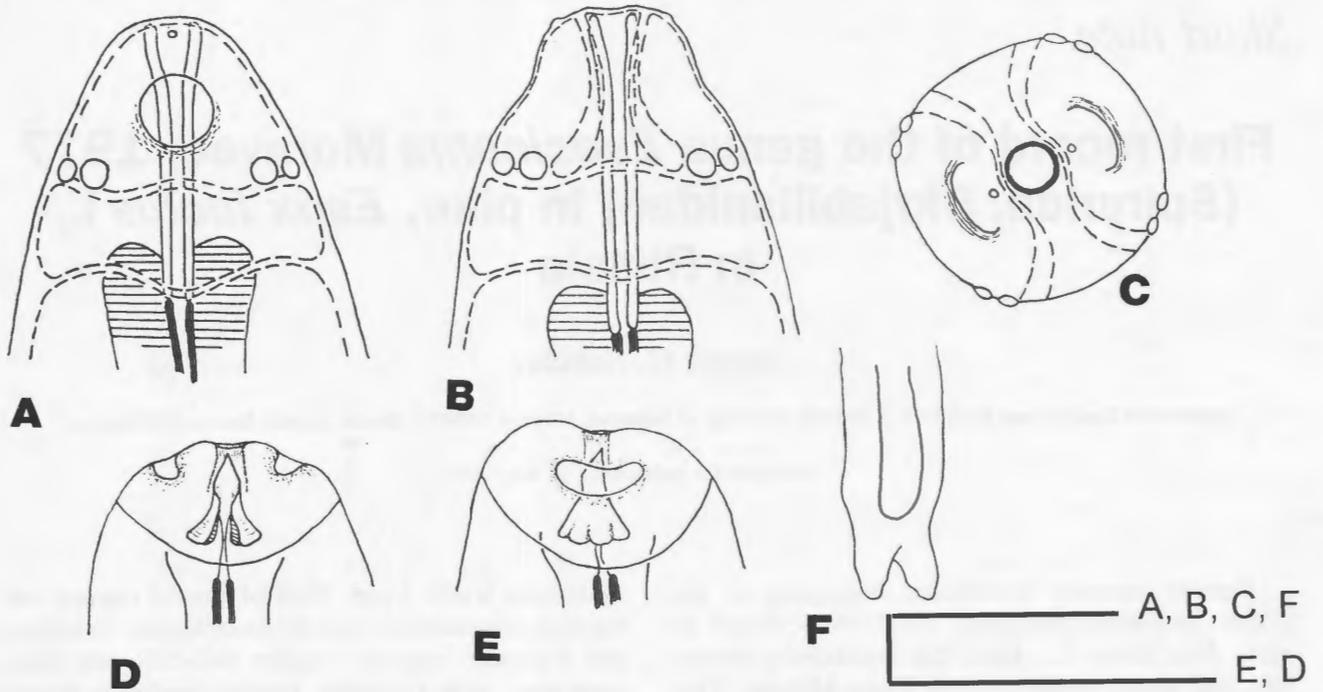


Fig. 1. *Esocinema* sp. A: Cephalic end of adult female, ventral view; B: Cephalic end of adult female, lateral view; C: Cephalic end of adult female, *en face* view; D: Cephalic end of fully-formed juvenile from uterus, ventral view; E: Cephalic end of fully-formed juvenile from uterus, lateral view; F: Caudal end of juvenile. Scale-bars - 0.01 mm



Fig. 2. *Esocinema* sp. Anterior extremity of female.

of *E. bohemicum*.

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