RESEARCH NOTE

REDESCRIPTION AND SYSTEMATIC STATUS OF *NEOCAPILLARIA PHOXINI* YU ET WANG, 1994 (NEMATODA: CAPILLARIIDAE)

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Abstract. Re-examination of the syntypes of the capillariid nematode *Neocapillaria phoxini* Yu et Wang, 1994, the type species of *Neocapillaria* Yu et Wang, 1994, described from the intestine of the freshwater fish *Phoxinus lagowskii variegatus* Günther (Cyprinidae) from China, confirmed its morphological similarity with species of *Freitascapillaria* Moravec, 1987, to which it is transferred as *Freitascapillaria phoxini* (Yu et Wang, 1994) comb. n. Consequently, *Neocapillaria* Yu et Wang, 1994 (a homonym to *Neocapillaria* Moravec, 1987) and *Sinocapillaria* Moravec et Spratt, 1998 become junior synonyms of *Freitascapillaria*. *Skrjabinocapillaria gigantea* is transferred to *Freitascapillaria* as *F. gigantea* (Wang, 1984) comb. n.

Yu and Wang (1994) established a new capillariid genus *Neocapillaria* Yu et Wang, 1994 based on *Neocapillaria phoxini* Yu et Wang, 1994, a newly described species from the cyprinid *Phoxinus lagowskii variegatus* Günther in China. Because *Neocapillaria* proved to be a junior homonym to *Neocapillaria* Moravec, 1987, Moravec and Spratt (1998) proposed a new name, *Sinocapillaria* Moravec et Spratt, 1998, which they considered a synonym of *Pseudocapillaria* Freitas, 1959. However, a recent re-examination of the syntypes of *N. phoxini*, deposited at the Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan, made it possible to redescribe the morphology of this species in more detail, indicating thus that it is in a full agreement with the diagnosis of *Freitascapillaria* Moravec, 1982. Consequently, *Sinocapillaria* (identical with *Neocapillaria* Yu et Wang, 1994) becomes a junior synonym of *Freitascapillaria*, to which the respective species from China is transferred.

Freitascapillaria phoxini (Yu et Wang, 1994) comb. n. Fig. 1
Syn. *Neocapillaria phoxini* Yu et Wang, 1994.

Description (measurements in micrometres unless otherwise stated): Small, filiform nematodes. Anterior end narrowed, rounded, with indistinct cephalic papillae. Cuticle thin, almost smooth. Two lateral bacillary bands of rough structure extending along almost whole length of body. Oesophagus consisting of narrow and short anterior muscular portion and simple posterior stichosome composed of single row of 37–40 stichocytes provided with large cell nuclei; stichocytes short to elongate, usually slightly subdivided into 3–12 transverse annuli. Nerve ring encircling muscular oesophagus approximately one-third posteriad, excretory pore not observed. Entire oesophagus representing 31–54% of body length. Two wing-like pseudocoelomatic glandular cells present at oesophago-intestinal junction. Males smaller than females.

Male (4 complete specimens and 2 body fragments): Length of body 4.47–5.94 mm, maximum width 48–54. Length of entire oesophagus 2.04–2.78 mm (47–54% of body length), of muscular oesophagus 105–117, of stichosome 1.93–2.67 mm; stichocytes 37 in number. Nerve ring 48–54 from anterior extremity. Spicule short, poorly sclerotized, 72–81 long and 6 wide near proximal end, difficult to observe; its distal portion narrowed, 2 wide, with pointed end. Eversible spicular sheath nonspinous. Posterior end of seminal vesicle 177–240 from posterior extremity. Caudal end of body rounded, markedly expanded in dorsoventral view, forming two rounded lateral lobes; width of body just anterior to these lobes 27–30, at level of lobes 39; length of expanded caudal part of body 27–33. Two pairs (1 preanal and 1 postanal) of small papillae present. Cloacal aperture subterminal; length of tail 6–9.

Female (1 complete specimen and 3 body fragments): Length of body 9.48 mm, maximum width 87. Lateral bacillary bands, near end of stichosome, 27 wide. Length of entire oesophagus 2.90–3.11 mm, representing 31% of body length, of muscular oesophagus 108–114, of stichosome 2.77–3.01 mm; stichocytes 39–40 in number. Nerve ring 48 from anterior extremity. Vulva situated somewhat posterior to oesophago-intestinal junction, 75–120 from end of oesophagus; vulval lips not elevated. Eggs oval, thin-walled, nonembryonated, appearing to have smooth surface; polar plugs not protruding. Size of eggs 60–66 × 27–30, thickness of their wall 2–3; polar plugs 6 long and 6 wide. Rectum 90–105 long. Caudal end of body rounded, anus distinctly subterminal; length of tail 9.

Wang (1984) described *Skrjabinocapillaria gigantea* Wang, 1984 from *Phoxinus lagowskii* Dybowski in China, characterized by the alleged absence of a spicule and the presence of large lateral extensions on the male caudal end. However, a missing spicule is no longer considered characteristic of *Skrjabinocapillaria* Skarbilovich, 1946 (see Moravec 1982, Mas-Coma and Esteban 1985). The general morphology of *S. gigantea* indicates its belonging to *Freitascapillaria* (see Moravec 2001), to which it is now transferred as *F. gigantea* (Wang, 1984) comb. n. Even though the body measurements of this species are considerably greater than those of *F. phoxini*, the same host species and geographical distribution of both species suggest their possible conspecificity. Consequently, at present *Freitascapillaria* comprises the following three species: *F. maxillosa* (Vaz et Pereira, 1934) (type spe-

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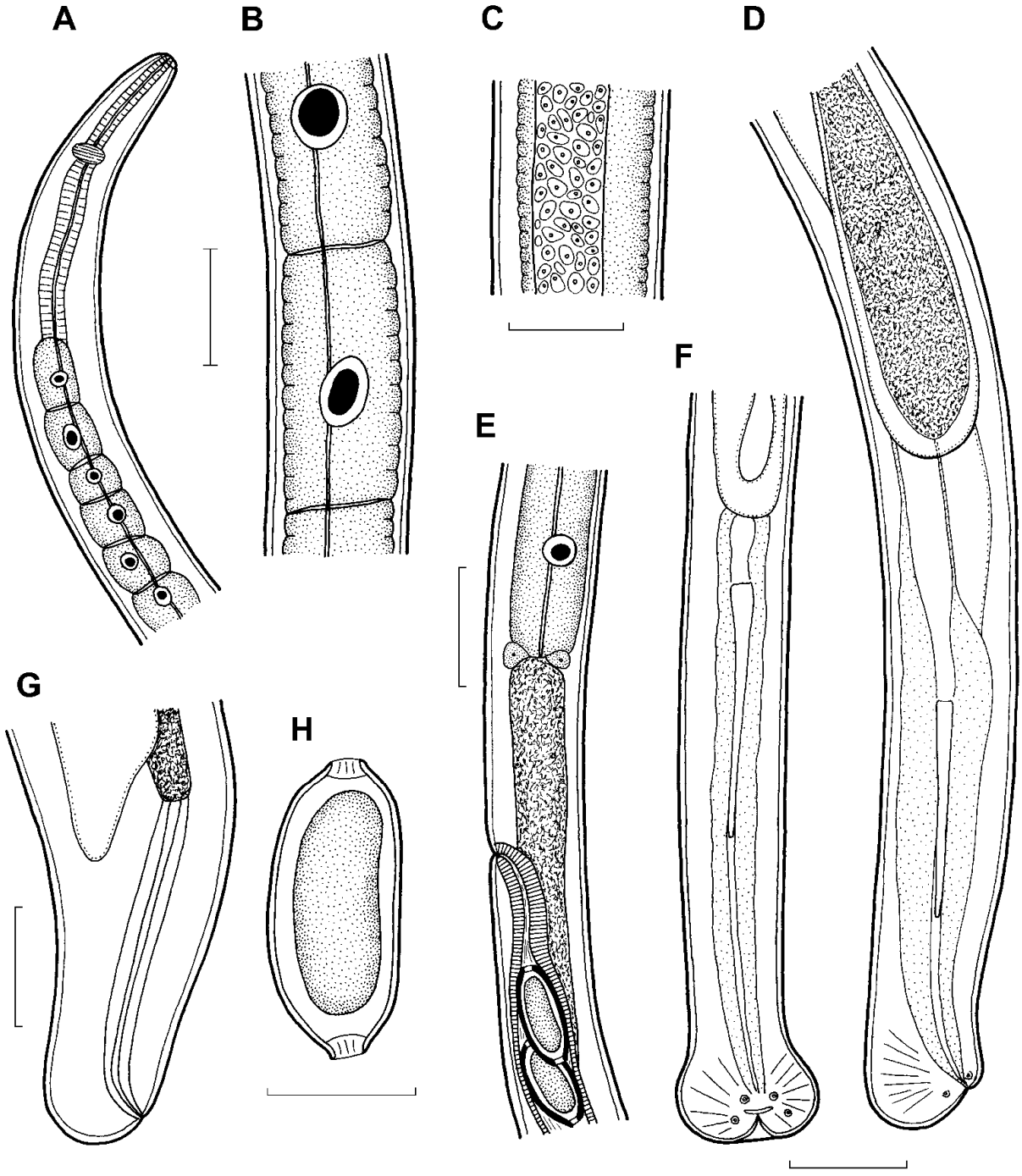

Fig. 1. *Freitascapillaria phoxini* (Yu et Wang, 1994). **A** – anterior end of female; **B** – stichocytes at middle part of stichosome; **C** – oesophageal region of body with marked bacillary band, lateral view; **D** – posterior end of male, lateral view; **E** – region of vulva, lateral view; **F** – posterior end of male, ventral view; **G** – caudal end of female, lateral view; **H** – egg. Scale bars: A–H = 30 μm.

cies) from characids in Brazil and *F. gigantea* (Wang, 1984) and *F. phoxini* (Yu et Wang, 1994) from cyprinids in China; the fourth congeneric species is being described from freshwater cottids in the USA (Moravec and Muzzall 2009).

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