Observations on some species of *Longidorus* (Nematoda : Longidoridae) from Jiangsu Province, China, with a description of *Longidorus jiangsuensis* n. sp.

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SUMMARY

Four *Longidorus* species are reported from Jiangsu Province which are the first records of any species of this genus in China. One is described as *L. jiangsuensis* n. sp., characterized by the narrow, continuous lip region; short, symmetrically-shaped, almost hemispherical tail; large, slightly bilobed amphid pouches; small to medium-sized body and odontostyle (L = 2.98-3.69 mm; ost. = 82-91 µm); and somewhat posteriorly situated guide ring (4.0-4.8 times lip region width from the anterior end). Two others are identified as *L. jonesi* Siddiqi, 1962 and *L. fursti* Heyns *et al.*, 1987. Morphometric data of some populations of these two species are given, with observations on their differences from the type populations. The fourth species is close to *L. macromucronatus* Siddiqi, 1962. It is briefly described here to separate it from the other species, but too few specimens are available to be certain of its identity. The genus *Neolongidorus* Khan, 1987 is rejected and *N. himalayensis* becomes *Longidorus himalayensis* (Khan, 1987) n. comb.

RÉSUMÉ

Observations sur quelques espèces de Longidorus *(Nematoda : Longidoridae) provenant de la Province de Jiangsu, Chine, et description de* L. jiangsuensis *n. sp.*

Quatre espèces de *Longidorus* sont signalées, provenant de la province de Jiangsu : il s'agit de la première mention d'espèces de ce genre en Chine. L'une des espèces, décrite sous le nom de *L. jiangsuensis* n. sp., est caractérisée par : une région labiale étroite et continue avec le reste du corps; une queue courte, symétrique et presque hémisphérique; des poches amphidiennes importantes et discrètement bilobées; un corps et un odontostyle de longueur moyenne (L = 2,98-3,69 mm; odont. = 82-91 µm); un guide du stylet en position relativement postérieure (à 4-4.8 diam. lab. de l'extr. ant.). Deux autres espèces sont identifiées à *L. jonesi* Siddiqi, 1962 et *L. fursti* Heyns *et al.*, 1987. Les données morphométriques relatives à ces deux espèces sont fournies, ainsi que des observations sur leurs différences avec les populations types. La quatrième espèce, proche de *L. macromucronatus* Siddiqi, 1962, est brièvement décrite pour la distinguer des autres espèces, mais le faible nombre de spécimens ne permet pas son identification. Le genre *Neolongidorus* Khan, 1987 est rejeté, et *N. himalayensis* est renommé *Longidorus himalayensis* (Khan, 1987) n. comb.

Longidorids and trichodorids are economically important nematodes for both their direct damage to plants and their potential as vectors of plant viruses. Reports on *Xiphinema* and trichodorid species in China have been very few and unofficial, and in most cases their identification is doubtful. To date, there are no reports of *Longidorus* species in China. In an attempt to assess the occurrence and distribution of longidorid and trichodorid nematodes in China, a survey was carried out, in the first instance, in Jiangsu Province, Eastern China, from 1985 to 1988. Some 700 soil samples were taken from around roots of the main crops and trees (mainly fruit trees) throughout the province. Two species of *Xiphinema*, four species of *Longidorus*, two species of *Trichodorus* and one species of *Paratrichodorus* were found, mostly associated with trees. This paper reports on the four *Longidorus* species found.

Specimens were heat killed in water and fixed in TAF for some two weeks. They were then processed to, and mounted in, glycerol using the slow method after Golden in Hooper (1970). All the measurements were made on specimens mounted in glycerol.

Table 1

Morphometrics of paratype females and juveniles of *Longidorus jiangsuensis* n. sp.

Stages	*J1*	*J2*	*J3 and/or J4*	*Fem.*
n	15	13	15	10
L (mm)	1.39 ± 0.11 (1.28-1.63)	1.93 ± 0.15 (1.66-2.21)	2.53 ± 0.21 (2.17-2.96)	3.38 ± 0.25 (2.98-3.69)
a	74 ± 4.0 (68-80)	80 ± 4.4 (74-88)	92 ± 5.6 (80-101)	99 ± 3.9 (94-107)
b	6.2 ± 1.3 (4.6-9.0)	7.4 ± 1.3 (5.6-9.8)	8.4 ± 1.7 (6.0-12.3)	11.0 ± 2.1 (8.1-16.0)
c	62 ± 8.5 (55-88)	90 ± 10.2 (71-106)	116 ± 6.9 (101-129)	166 ± 11.8 (150-183)
c′	1.6 ± 0.15 (1.2-1.9)	1.2 ± 0.14 (1.1-1.5)	1.0 ± 0.06 (0.9-1.1)	0.8 ± 0.06 (0.7-0.9)
V	–	–	–	48 ± 0.8 (46-49)
G_1	–	–	–	8.0 ± 1.1 (6.5-9.4)
G_2	–	–	–	6.6 ± 0.9 (5.0-7.7)
Odontostyle (µm)	56 ± 1.8 (52-59)	65 ± 2.3 (61-69)	75 ± 2.3 (72-80)	87 ± 2.4 (82-91)
Odontophore (µm)	32 ± 1.6 (29-34)	39 ± 2.6 (35-45)	44 ± 1.9 (40-47)	52 ± 2.1 (49-56)
Total stylet (µm)	88 ± 2.4 (85-92)	104 ± 2.7 (98-105)	119 ± 2.3 (116-125)	139 ± 2.3 (134-141)
Repl. odontostyle (µm)	63 ± 2.8 (56-67)	74 ± 1.9 (72-77)	86 ± 1.9 (83-89)	–
GR* (µm)	20.4 ± 0.6 (19.6-21.6)	24.7 ± 0.8 (23-26.0)	28.2 ± 1.4 (25.5-30.4)	32.1 ± 0.7 (30.9-32.8)
Tail (µm)	22.9 ± 1.4 (20.6-25.5)	23.3 ± 2.2 (18.6-24.6)	21.5 ± 1.7 (18.6-23.7)	20.4 ± 1.8 (17.7-22.7)
Lip region width (µm)	4.3 ± 0.4 (3.9-5.0)	5.0 ± 0.3 (4.9-5.9)	6.1 ± 0.4 (5.4-6.8)	7.3 ± 0.4 (6.4-7.7)
BWGR* (µm)	10.7 ± 0.3 (10.3-11.3)	12.4 ± 0.3 (11.8-12.7)	14.0 ± 0.5 (13.2-14.7)	15.8 ± 0.3 (15.4-16.0)
BWOB* (µm)	17.9 ± 0.9 (16.7-20.0)	22.7 ± 1.8 (20.1-27.4)	26.0 ± 2.0 (23.5-30.3)	31.0 ± 1.2 (29.4-33.3)
BWMB* (µm)	18.6 ± 1.0 (17.6-20.6)	24.1 ± 1.8 (22.5-28.4)	27.4 ± 1.8 (24.5-30.9)	34.2 ± 2.5 (30.9-39.1)
Anal body width (µm)	13.8 ± 0.8 (12.7-15.5)	18.0 ± 1.4 (15.7-20.6)	21.6 ± 1.3 (18.6-23.5)	25.1 ± 1.3 (22.1-26.5)

* GR = anterior end to guide ring; BWGR = body width at guide ring BWOB = body width at oesophagus base; BWMB = body width at mid-body.

Longidorus jiangsuensis n. sp.
(Figs 1 & 3 A, B)

Measurements

Female : see Table 1.

Juveniles : see Table 1.

Holotype (female) : L = 3.06 mm; a = 100; b = 8.2; c = 159; c′ = 0.8; V = 47; odontostyle = 90 µm; odontophore = 52 µm; anterior end to guide ring = 32.1 µm; tail = 19.2 µm.

Description

Female : Body slightly curved ventrally when relaxed by gentle heat, tapering towards both ends, more so from oesophagus base anteriorly. Cuticle smooth (under light microscope), composed of three layers, the outer layer very thin along the whole body, the inner layer is also very thin along most of the body, but it becomes wider near the lip region and strongly thickened and radially striated at the tail. Cuticle 2.3-2.7 µm thick near the lip region, 1.8-2.5 µm at mid body and 9.1-11.8 µm at the tail tip. Lateral chords weakly developed, occupying about 1/5 corresponding body width except on the neck where they gradually narrow anteriorly down to thin lines. Body pores generally indistinct in the anterior body, with 23-28 lateral, 3-4 ventral and 0-1 dorsal pores on the neck region. Lip region narrow, rounded anteriorly, 6.4-7.7 µm wide (measured at the outer circlet of labial papillae), continuous with the body contour. Amphid pouches large, sac-like, slightly bilobed at the base, extending about half the distance from the anterior end to the guide ring; amphidial openings difficult to see with the light microscope. Stylet typical of the genus with simple odontostyle base. Guide ring situated somewhat posteriorly, 30.9-32.8 µm or 4.0-4.8 times lip region width from the anterior end. Two nerve rings present, the first strongly developed around the base of odontophore, the second is weaker, 1.5-2 body widths behind the first; " mucro " not observed. Hemizonid and hemizonion indistinct. Oesophageal bulb long, cylindrical, measuring 81.7-91.0 × 13.7-16.7 µm. Positions of the oesophageal gland nuclei typical of the genus : the dorsal nucleus smaller than the submedian nuclei and located in the anterior third and middle of the bulb respectively. Cardia hemispherical. Vulva a transverse slit, vagina heavily cuticularized, extending half the body width. Ovejector weakly developed. Reproductive tracts paired, opposed, and about equally developed, each consisting of a long, narrow uterus, an undifferentiated oviduct and a reflexed ovary. Prerectum indis-

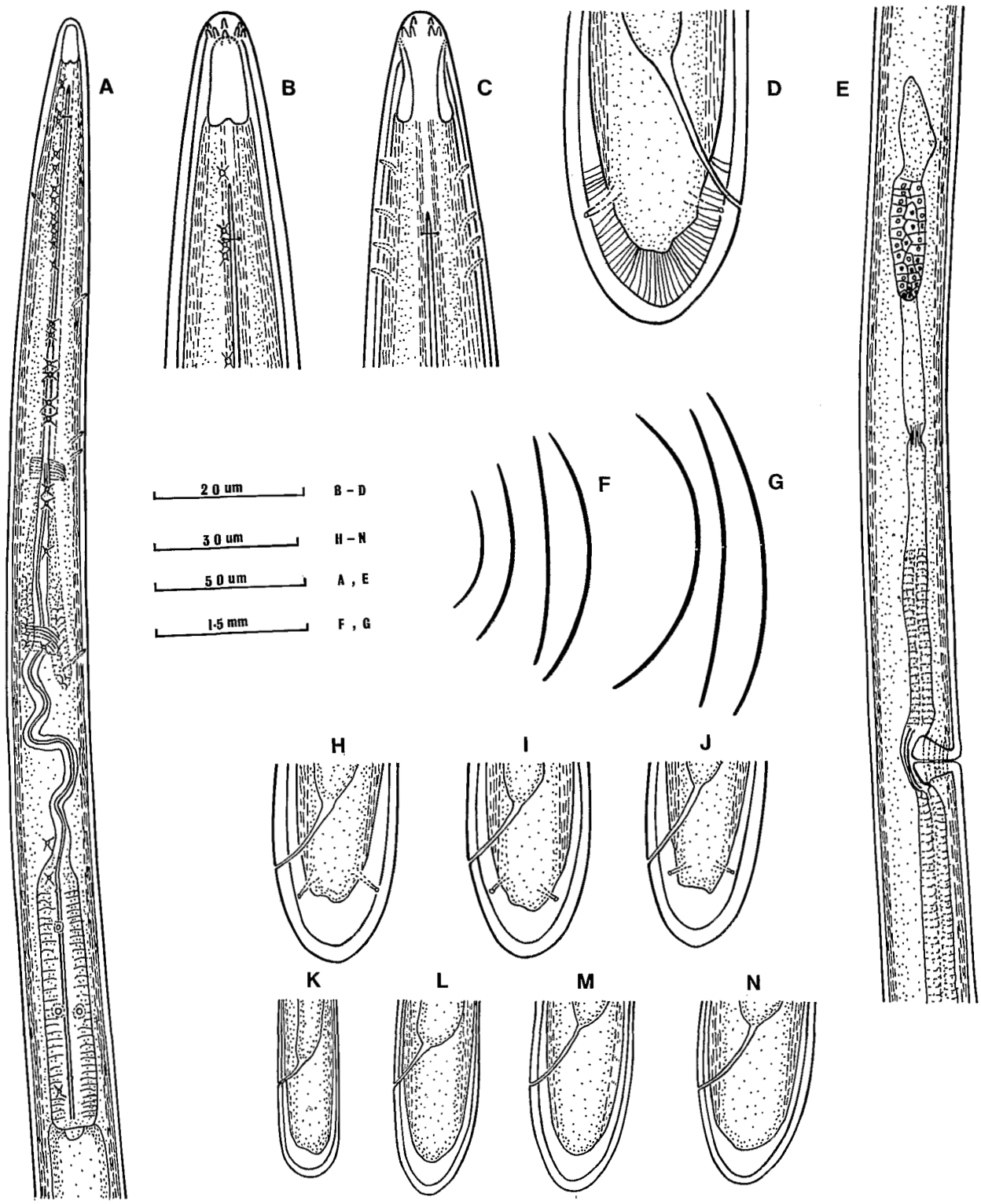

Fig. 1. *Longidorus jiangsuensis* n. sp. Female : A : Œsophageal region - lateral; B : Head region - lateral; C : Head region -dorso/ventral; D, H-J : Tails - lateral; E : Vulva and anterior reproductive tract; G : Habitus. Juveniles : F : Habitus of 1st, 2nd, 3rd, and 4th stages; K-N : Tails of 1st, 2nd, 3rd, and 4th stages.

tinct. Tail short and symmetrically shaped, tail tip bluntly rounded, almost hemispherical. A pair of caudal pores present on each side.

Male : Not found.

Juveniles : Forty three specimens were found, among which J1 and J2 can be easily identified by odontostyle length and tail shape. We were unable to separate J3 and J4 by odontostyle length, body length or tail shape although some with a shorter, narrower body, may be J3. Juvenile tails gradually become broader and relatively shorter as they progress to the fourth stage. In J1, the tail tip has a characteristic hemispherical shape, whereas it tends to be bluntly conical in other stages. Lip region shape of all stages similar to that of adults.

TYPE SPECIMENS

Holotype (female) : Deposited in the Nematology Laboratory of Nanjing Agricultural University, Nanjing, China.

Paratypes : Five females in the same place as the holotype, and five females in the nematode collection of the Department of Entomology and Nematology, Rothamsted Experimental Station, Harpenden, England.

TYPE HABITAT AND LOCALITY

Clay soil around roots of strawberry (*Fragaria* × *ananassa* Duch.) in Nanjing, Jiangsu Province, China.

DIAGNOSIS AND RELATIONSHIP

Longidorus jiangsuensis n. sp. is characterized by the narrow, continuous lip region; short, symmetrically-shaped, almost hemispherical tail; large, slightly bilobed amphids; small to medium-sized body and odontostyle and somewhat posteriorly situated guide ring.

Small to medium-sized *Longidorus* species with a narrow, continuous lip region and a short, almost hemispherical female tail are *L. belondiroides* Heyns, 1967; *L. congoensis* Aboul-Eid, 1970; *L. eridanicus* Roca, Lamberti & Agostinelli, 1984; *L. orientalis* Loof, 1983 and *L. taniwha* Clark, 1963. In appearance and measurements *L. jiangsuensis* n. sp. is closest to *L. belondiroides*, *L. congoensis* and *L. jonesi*. It differs from *L. belondiroides* in having a thinner body (a = 94-107 *vs* 56-64), a longer, less rounded female tail (c′ = 0.7-0.9 *vs* 0.4-0.6) and shorter, bilobed amphid pouches. Also a male is known for *L. belondiroides*, but not for *L. jiangsuensis*. It differs from *L. congoensis* in a thinner body (a = 50-61 in the latter); symmetrically-shaped tail (dorsally convex); more posteriorly situated guide ring (4.0-4.8 *vs* 2 lip region widths from the anterior end) and less curved body (C-shaped to spiral). From *L. jonesi*, females differ in having a more rounded lip region, more elongate bilobed amphids, guide ring nearer lip region (32 *vs* 62 µm) a narrower body (a = 61-75 for *L. jonesi*) and a longer (c′ = 0.6 for *L. jonesi*) and more symmetrically-shaped tail. *L. jiangsuensis* n. sp. is distinguished from all the other above mentioned species by its shorter body and odontostyle. It can also be separated from *L. eridanicus* and *L. taniwha* by its relatively longer and less rounded tail, from *L. eridanicus* and *L. orientalis* by its slightly bilobed amphid pouches, from *L. taniwha* by its thinner body and from *L. orientalis* by its less curved body.

Longidorus jonesi Siddiqi, 1962
(Figs 2 A-E, 3 C)

This nematode was found in association with peach trees [*Prunus persica* (L.) Batsch] and cypress (*Cupressus funebris* Endl.) in Nanjing, central Jiangsu, and with plum trees [*Prunus mume* (Sieb.)] in Suzhou, Southern Jiangsu. Morphometric data of females of two populations are given in Table 2.

The Chinese specimens conform well to the original description of *L. jonesi* in almost all the main features except for a slight difference in lip region shape. Siddiqi (1962) described *L. jonesi* with a lip region " continuous with body contour, not set off in any manner ", and this has been confirmed by examination of the holotype. The lip region of the Chinese specimens is usually slightly set off from the body contour by a shallow depression (Figs

Table 2

Morphometrics of two Chinese populations of *Longidorus jonesi*

Locality and host	*Nanjing peach (females)*	*Suzhou plum (females)*
n	15	3
L (mm)	3.92 ± 0.32 (3.57-4.86)	4.37 (3.97-4.81)
a	66 ± 4.7 (58-77)	64 (61-66)
b	9.6 ± 1.7 (7.9-14.4)	12.0 (10.9-14.3)
c	131 ± 14.3 (116-170)	122 (113-128)
c′	0.8 ± 0.07 (0.7-1.0)	0.8 (0.8-0.9)
V	49 ± 1.6 (47-52)	47 (46-48)
Odontostyle (µm)	118 ± 4.6 (109-131)	119 (117-120)
Odontophore (µm)	72 ± 3.4 (66-77)	75 (74-76)
Total stylet (µm)	190 ± 5.6 (182-206)	194 (192-195)
GR (µm)	68.7 ± 2.7 (63.7-72.4)	71.6 (68.3-73.7)
Tail (µm)	30.1 ± 2.5 (25.4-33.7)	33.8 (30.9-35.5)
Lip region width (µm)	13.8 ± 0.5 (12.7-14.6)	13.8 (13.7-14.1)
BWGR (µm)	33.8 ± 1.4 (31.8-36.4)	33.7 (32.8-34.6)
BWOB (µm)	51.7 ± 4.1 (47.3-59.6)	52.8 (51.9-54.6)
BWMB (µm)	59.4 ± 5.0 (52.1-68.3)	68.7 (65.5-72.8)
Anal body width (µm)	36.8 ± 2.1 (34.1-41.9)	40.0 (37.3-42.8)

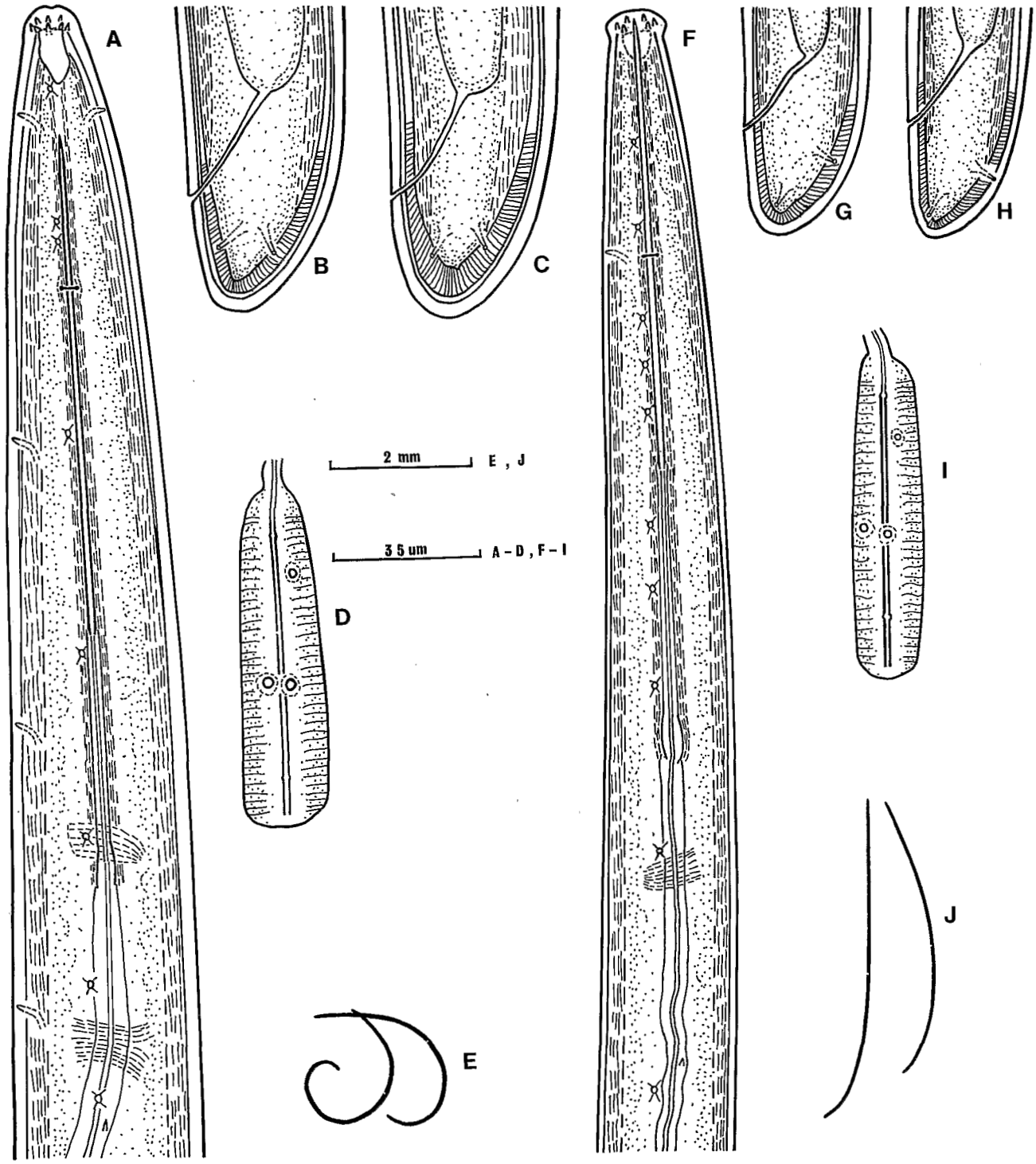

Fig. 2. A-E, *Longidorus jonesi* Siddiqi, 1962, female : A : Anterior region - lateral; B & C : Tails - lateral; D : Posterior oesophagus; E : Habitus. F-J, *L. fursti* Heyns *et al.*, 1987, female : F : Anterior region - lateral; G & H : Tails - lateral; I : Posterior oesophagus; J : Habitus.

2 A, 3 C). Since this difference may be due only to geographical variation, the Chinese specimens, being so similar in other features, are regarded as variants of *L. jonesi.*

Longidorus fursti Heyns, Coomans, Hutsebaut & Swart, 1987
(Figs 2 F-J, 3 F, G)

Only one population of the nematode was found. It was extracted from sandy soil around roots of Chinese Scholartrees (*Sophora japonica* L.) in Fongxian, northern Jiangsu. Measurements of the population are given in Table 3.

The Chinese specimens generally agree with the original description of *L. fursti* with regard to lip region shape, body and odontostyle length, stylet structure (odontostyle and odontophore bases) and guide ring position. But the Chinese specimens have a longer odontophore (75-78 *vs* 63-70 µm in females; 63-68 *vs* 59-61 µm in J4) and slightly more dorsally convex tail in both adults and juveniles (compared with the original illustration). These slight differences are not considered enough to justify a separate species from *L. fursti.*

Longidorus sp.
(Fig. 3 D, E)

This nematode was found in clay soil around roots of apple trees (*Malus pumila* Mill.) in Yizhen, central Jiangsu. Only two females and three fourth stage juveniles were extracted.

MEASUREMENTS

Females (n = 2) : L = 4.57-5.49 mm; a = 78-92; b = 9.8-10.2; c = 122-152; c′ = 0.92-0.93; V = 46-55; odontostyle = 127 µm (the other broken); odontophore = 83-93 µm; GR = 72.4-76.2 µm; tail = 36.2-37.5 µm; lip region width = 16.5-17.8 µm; BWGR = 34.3-36.8 µm; BWOB = 49.5-51.8 µm; BWMB = 58.4-59.7 µm; anal body width = 39.4-40.6 µm.

Juveniles, 4th stage (n = 3) : L = 3.93 mm (3.58-4.24); a = 76 (73-80); b = 11.9 (9.3-15.5); c = 105 (104-106); c′ = 1.0 (0.9-1.0); odontostyle = 104 µm (103-106); odontophore = 76 µm (73-78); replacement odontostyle = 126 µm (117-132); GR = 53.4 µm (43.7-59.2); tail = 37.6 µm (33.7-41.0); lip region width = 15.0 µm (14.6-15.5); BWGR = 28.8 µm (27.3-30.0); BWOB = 43.5 µm (41.9-44.6); BWMB = 51.6 µm (49.1-52.8); anal body width = 38.7 µm (37.3-39.6).

DESCRIPTION

Female : Body C-shaped to spiral when relaxed by gentle heat. Cuticle finely striated, appearing in four layers, the inner layer becomes strongly thickened and radially striated at tail tip. Body pores prominent, 9-10 lateral, 1 dorsal and 6-8 ventral pores were observed on the neck. Lip region slightly expanded, anterior end flattened. Amphids broad and short, appearing bilobed at the base, amphidial openings difficult to see with light microscope. Stylet atypical for *Longidorus;* odontostyle

Table 3

Morphometrics of a Chinese population of *Longidorus fursti*

Stages	*J1*	*J2*	*J3*	*J4*	*Fem.*
n	4	7	10	7	2
L (mm)	1.34 ± 0.07 (1.25-1.43)	1.83 ± 0.09 (1.67-1.96)	2.39 ± 0.14 (2.13-2.59)	3.14 ± 0.17 (2.93-3.40)	4.15-4.69
a	61 ± 0.4 (55-66)	67 ± 2.1 (64-70)	80 ± 3.2 (76-84)	95 ± 2.8 (91-98)	105-112
b	5.6 ± 0.3 (5.2-5.8)	6.6 ± 1.1 (5.3-8.7)	7.5 ± 0.6 (6.6-8.6)	8.4 ± 0.8 (7.6-9.9)	10.2-12.5
c	35 ± 5.4 (31-43)	44 ± 4.3 (38-51)	67 ± 8.4 (54-83)	90 ± 9.1 (79-104)	142-176
c′	3.0 ± 0.08 (2.9-3.1)	2.3 ± 0.18 (2.1-2.6)	1.8 ± 0.14 (1.5-2.2)	1.4 ± 0.10 (1.3-1.5)	1.0-1.1
V					52-53
Odontostyle (µm)	61 ± 2.3 (59-64)	71 ± 2.0 (67-73)	82 ± 2.5 (78-85)	92 ± 2.7 (88-96)	111-112
Odontophore (µm)	40 ± 1.5 (38-41)	52 ± 2.0 (49-55)	57 ± 1.9 (54-59)	66 ± 2.2 (63-68)	75-78
Total stylet (µm)	101 ± 3.1 (98-105)	123 ± 2.7 (120-127)	139 ± 2.9 (134-142)	158 ± 3.3 (156-164)	187-189
Repl. odontostyle (µm)	70 ± 1.3 (69-72)	81 ± 2.0 (78-84)	92 ± 1.9 (89-95)	106 ± 2.0 (104-109)	–
GR (1) (µm)	28.5 ± 0.9 (27.4-29.4)	38.0 ± 0.4 (37.3-38.2)	45.0 ± 1.4 (42.1-47.3)	50.6 ± 0.9 (49.1-51.9)	61.0-62.2
Tail (µm)	40.8 ± 0.8 (40.2-41.9)	41.5 ± 2.6 (38.2-44.6)	38.0 ± 2.9 (33.7-42.1)	35.0 ± 1.6 (32.8-37.3)	26.7-29.2
Lip region width (µm)	9.0 ± 0.3 (8.6-9.3)	10.4 ± 0.5 (9.8-10.9)	11.3 ± 0.3 (10.8-11.8)	12.3 ± 0.2 (11.8-12.7)	12.7-14.0
BWGR (µm)	14.1 ± 0.4 (13.7-14.6)	16.7 ± 0.5 (16.2-17.6)	18.5 ± 0.6 (17.6-19.6)	21.1 ± 0.4 (20.9-21.8)	24.1-24.3
BWOB (µm)	19.5 ± 2.1 (16.4-20.6)	24.8 ± 0.9 (23.5-26.5)	27.3 ± 1.6 (26.5-30.4)	30.9 ± 1.1 (29.1-32.8)	36.0-37.1
BWMB (µm)	21.9 ± 0.5 (21.6-22.5)	27.5 ± 1.0 (25.5-28.4)	30.1 ± 2.0 (27.4-34.3)	33.2 ± 1.6 (30.9-34.6)	39.4-41.9
Anal body width (µm)	13.6 ± 0.2 (13.2-13.7)	17.9 ± 0.6 (17.2-18.6)	21.2 ± 1.4 (19.6-24.0)	25.8 ± 1.1 (24.6-27.3)	27.6-28.2

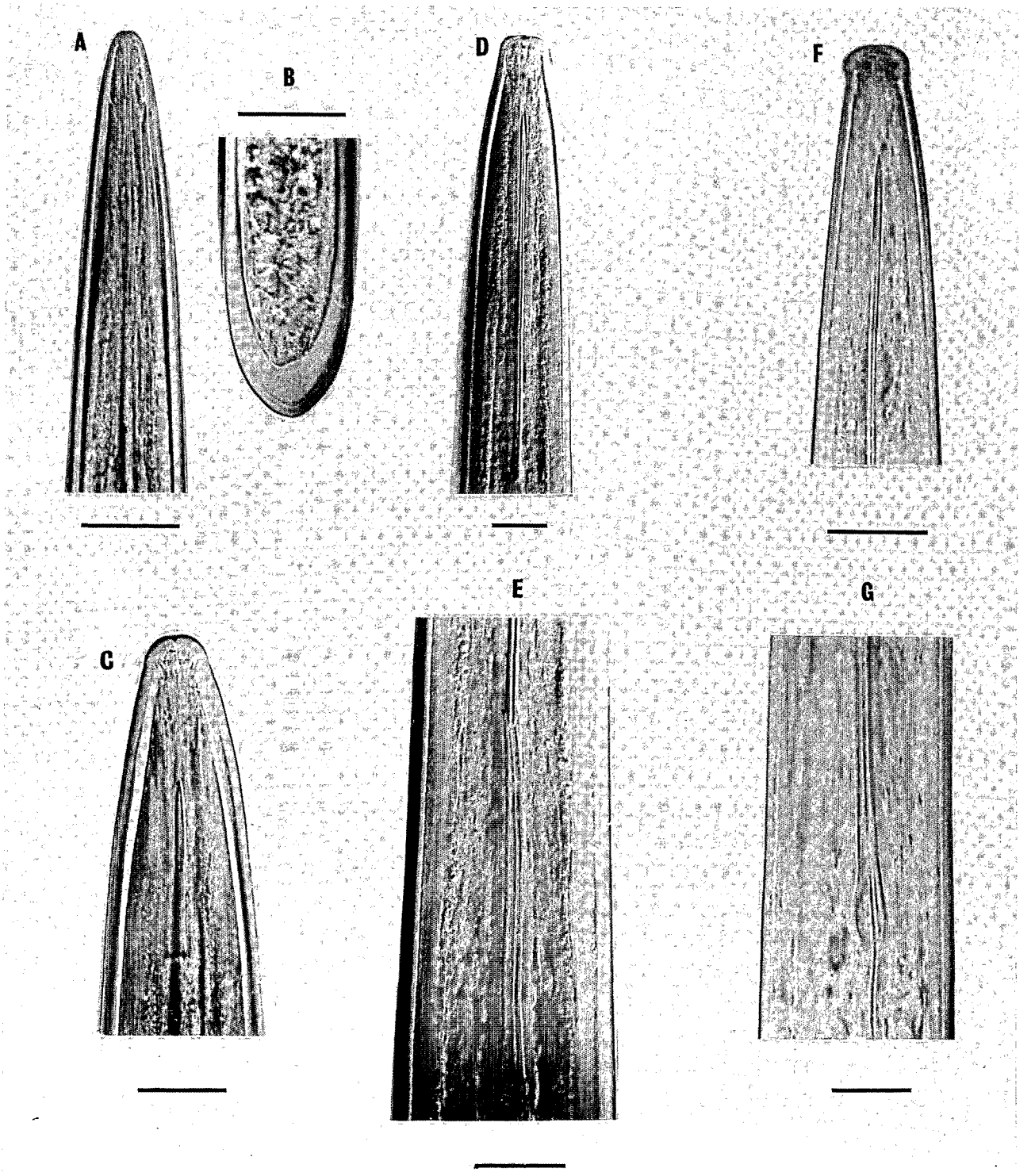

Fig. 3. *Longidorus* spp. from China, females : A & B : *L. jiangsuensis* n. sp. - Anterior region and tail; C : *L. jonesi* - Anterior region; D & E : *L.* sp. close to *L. macromucronatus* - Anterior region & base of odontostyle (note forked base) and odontophore; F & G : *L. fursti* Anterior region and the characteristically thickened odontophore base. (Scale bars = 20 µm).

bearing distinct projections at its attachment to odontophore. Guide ring posteriorly situated, about 4.5 times lip region width from the anterior end; " mucro " very short, about 1.8 µm long. Oesophageal bulb measuring 81.1-101.6 × 20.3-22.9 µm, arrangement of the oesophageal gland nuclei typical of *Longidorus*. Vulva a transverse slit. Reproductive tracts paired, opposed, and of about equal size, ovaries reflexed. Prerectum distinct, about 18 times anal body width long. Tail short, dorsally convex, ventral side almost straight with body contour, tail tip obtusely rounded. A pair of caudal pores present on each side.

Male : Not found.

Juveniles : (4th stage) : Very similar to adults, only body less curved and tail relatively longer.

REMARKS

Longidorus sp. is closest to *L. macromucronatus* Siddiqi, 1962 which it resembles in lip region shape, position of guide ring, and body and odontostyle length, but differs in tail shape (relatively longer : $c' = 0.9$ *vs* 0.7, and tail tip more obtusely rounded in the former), structure of the odontostyle base (bearing distinct projections *vs* simple) and " mucro " size (1.8 *vs* 6 µm). Since more specimens are needed to be certain of these differences, the species is not named here.

Remarks on the genus *Neolongidorus* Khan, 1987

Neolongidorus Khan, 1987 was separated from *Longidorus* mainly by the position of the guide ring : maximum of three lip region widths from the oral aperture in *Longidorus*, about four lip region widths in *Neolongidorus*. However, although many *Longidorus* species have the guide ring at less than three lip region widths from the anterior end, there are several species where this value falls between three and four lip region widths : *L. eridanicus* Roca, Lambert & Agostinelli, 1984 (3.2 lip widths); *L. fragilis* Thorne, 1974 (3.5); *L. diadecturus* Eveleigh & Allen, 1982 (3.6); *L. belondiroides* Heyns, 1967 (3.6-3.7); *L. mobae* Jacobs & Heyns, 1987 (3.8); *L. paramirus* Darekar & Khan, 1982 (3.8-4.5). Khan (1987) also stated that in *Neolongidorus* the amphid pouch extends less than one third the distance from the anterior end to the guide ring *vs* about halfway in *Longidorus*. However, this feature is dependent upon the position of the guide ring there being no obvious difference in the actual extent of the amphid pouches between the two genera. Hence the difference between *Neolongidorus* and *Longidorus* is not as distinct as claimed by Khan (1987) and we consider *Neolongidorus* to be a junior synonym of *Longidorus*. Consequently *Neolongidorus himalayensis* Khan, 1987 becomes *Longidorus himalayensis* (Khan, 1987) n. comb. Other *Longidorus* species transferred by Khan (1987) to *Neolongidorus* are herewith returned to *Longidorus : Longidorus brevicaudatus* Schuurmans Stekhoven, 1951; *L. jonesi* Siddiqi, 1962 and *L. macromucronatus* Siddiqi, 1962.

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