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A new free-living nematode *Intasia monohystera* gen. n., sp. n. (Nematoda, Araeolaimida, Diplopeltidae) from the Barents Sea and the White Sea, with a key to genera of Diplopeltidae

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Summary. *Intasia monohystera* gen. n., sp. n. (Diplopeltidae) is described from two localities, Håkon Mosby Mud Volcano in the Barents Sea (depth 1294 m) and Kandalaksha Trench in the White Sea (depth 270-287.5 m). The new genus *Intasia* is featured by: finely cross-striated cuticle without lateral differentiation; terminal mouth opening; rounded comma-like amphidial fovea, narrow tubular buccal cavity, evenly muscular pharynx, position of the ventral pore at the level of anterior part of pharynx, and an unpaired anterior outstretched ovary with a posterior blind sack. The new genus is closely related to *Araeolaimus* and *Southerniella* and differs mainly by prodelphic female gonad. A pictorial key for the twelve valid genera of the family Diplopeltidae is proposed. The genus *Striatodora* is considered as genus *incerta sedis*.

Key words: Araeolaimida, Barents Sea, deep-sea nematodes, Diplopeltidae, Håkon Mosby, *Intasia*, Kandalaksha Trench, marine free-living nematodes, Nematoda, taxonomy, White Sea.

Nematofauna of the deeper sea areas remains to be largely unknown in the World Ocean except for some fragmentary species lists from a few sites. The most data on deep-sea nematode diversity represent lists of crude identifications at levels of genera or families whereas accumulation of species descriptions with accurate identifications proceeds slowly. Now deep-sea meiofaunists focus mostly on understanding species diversity. Another important topic is a geographical distribution of deep-sea nematode species. There are some discussions about areas of mega- and macrofauna, but this question is almost not touch regarding meiofauna and nematodes.

Here a description of a new nematode is proposed, which was registered simultaneously in two different sites of the deep sea.

MATERIAL AND METHODS

Sediment samples in the Håkon Mosby Mud Volcano (HMMV) area in the Barents Sea were taken during the Arctic Ocean expedition ARK XVIII/1 with the German research ice-breaker RV "Polarstern" in summer 2002. The tool for sampling was video-controlled multiple corer (MUC). Bottom samples in the Kandalaksha Bay of the White Sea were gathered during several passages of Russian RVs "Kartesh" and "Professor Kuznetzov" in 1998-1999, with the Barnett minicorer. Location of both stations where nematodes were taken is shown on the map (Fig. 1). Exact data on sampling sites are given in the Table 1.

Subsamples for faunal analysis were taken in all voyages with 5- and 20-ml disposable syringes with cutoff anterior ends and then preserved in 4% buffered formalin on board. In the laboratory, the subsamples were stained with Rose Bengal, washed through a successive set of sieves with various mesh size (500, 250, 125, 65 and 32 μm), and then sorted under a low-power stereo microscope. Extracted nematodes were placed into watch glasses with Seinhorst solution (95% alcohol – glycerin – distilled water mixture in proportion 29:1:70), gradually proceeded to glycerin using a slow evaporation at 40°C and then mounted into

permanent glycerin slides with a paraffin ring, glass beads as separators and glyceel seal. The slides were then studied with the Olympus BX51 light microscope equipped with Nomarski optics.

All examined specimens including the holotype and paratypes are deposited in the nematode collection of P.P. Shirshov's Institute of Oceanology, Russian Academy of Sciences, Nakhimovsky prosp., 36, Moscow, 117851, Russia.

Abbreviations:

a – body length divided by maximum body diameter;

am.w. – width of the amphidial fovea, in μm;

am.w. % - width of the amphidial fovea expressed as a percentage of the corresponding body diameter, in %;

b – body length divided by pharyngeal length;

c – body length divided by tail length;

c' - tail length expressed in anal diameters;

c.s. – length of cephalic setae, in μm;

c.s. % - length of cephalic setae expressed as a percentage of the corresponding body diameter, in %;

diam.am. – body diameter at the level of the amphidial fovea, in μm;

diam.an. – anal body diameter, in μm;

diam.ca. – body diameter at the level of cardia, in μm;

diam.c.s. – body diameter at the level of cephalic setae, in μm;

diam.n.r. – body diameter at the level of nerve ring, in μm;

diam.midb. – mid-body diameter, in μm;

dis.am. – distance from the cephalic apex to the anterior rim of the amphid, in μm;

dis.v.p. – distance from the cephalic apex to the ventral pore, in μm;

gub.l. – length of the gubernaculum, in μm;

L – body length, in μm;

spic.arc – spicule's length along the arch, in μm;

spic.chord - spicule's length along the chord, in μm;

st.l. – total stoma length, in μm;

st.w. – maximal stoma width, in μm;

V – distance of vulva from anterior end as percentage of body length, in%.

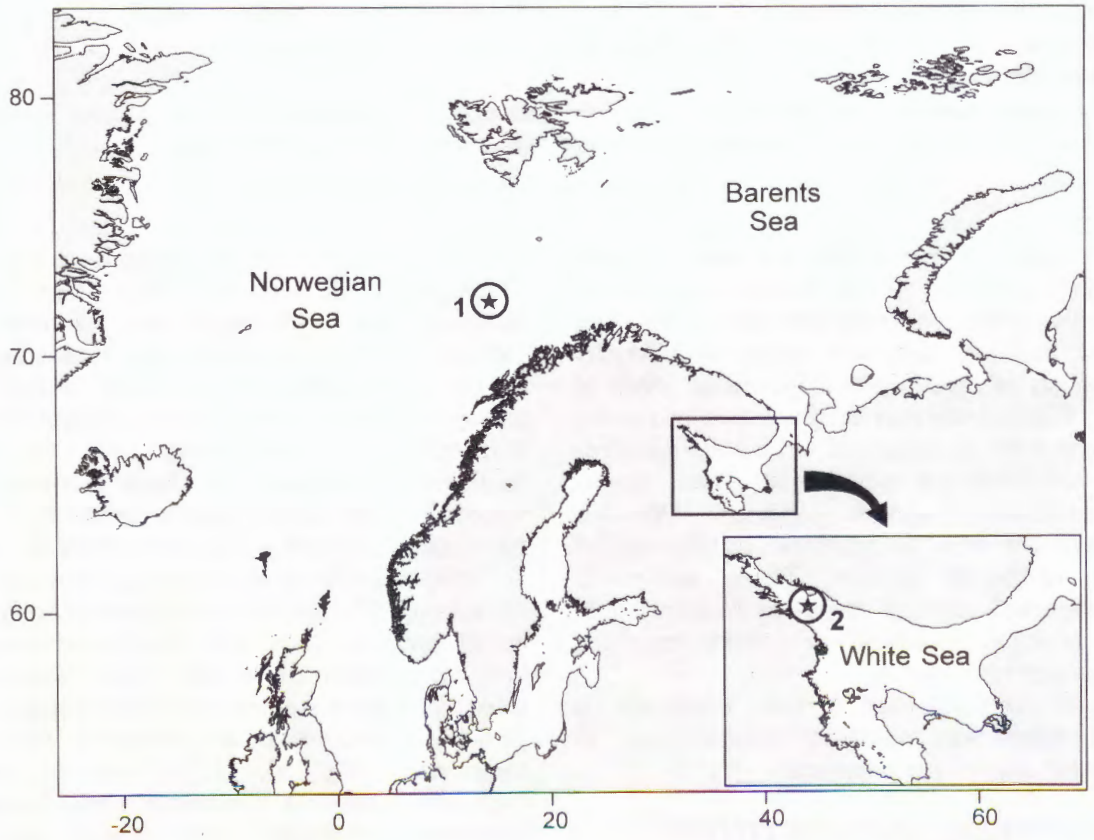

Fig. 1. Positions of two stations where specimens *Intasia monohystera* gen. n., sp. n. were sampled: Håkon Mosby Mud Volcano, Barents Sea (1) and Kandalaksha Trench, White Sea (2).

Table 1. Localities and morphometrics of adult specimens *Intasia monohystera*.

Label	Barents Sea			White Sea						
	ARK XVIII St. 263b			CBB-20 2B1 250 µm	CBB-34 1B2 125 µm		CBB-22 1A4 125 µm	CBB-23 2A2 125 µm	CBB-34 1B1 250 µm	CBB-22 2A1 125 µm
Coordinates, depth & date of the sample	72°00.017′N 14°43.900′E 1294 m August 20, 2002			66°25′95″N 34°22′23″E 270 m July 27, 1998	66°25′20″N 34°22′08″E 270 m November 24, 1999		66°26′03″N 34°19′50″E 287.5 m October 15, 1998	66°25′16″N 34°24′09″E 274 m May 31, 1999	66°25′20″N 34°22′08″E 270 m November 24, 1999	66°24′93″N 34°19′86″E 277.4 m October 15, 1998
	♂ holotype	1♀ paratype	2♀ paratype	1♂	2♂	3♂	4♂	5♂	1♀	2♀
L	1384	1414	1436	933	863	812	902	812	1985	898
a	35.5	33.7	31.9	32.2	28.9	30.1	27.3	31.2	32.5	27.2
b	7.00	7.10	7.50	6.70	7.70	7.10	7.10	6.9	7.70	6.75
c	11.8	14.0	12.1	10.3	12.6	10.0	10.5	10.8	13.0	11.0
c′	3.26	3.26	3.97	3.34	2.73	3.69	3.08	3.42	3.71	4.07
V	–	83	85	–	–	–	–	–	78	75
diam.c.s.	10	9.5	9	8	6	7	9	6	12	8
diam.am.	13	13	13	11	10	9	15	9	16	12
diam.n.r.	29	30	28	23	21	19	27	17	41	23
diam.ca.	35.5	36	33	27	25	23	32	22	49	27
diam.midb.	39	42	42	29	30	27	33	26	61	33
diam.an.	36	31	30	27	25	22	28	22	41	20
c.s.	5	4	4.5	5	4	4.5	?	5	4	4
c.s. %	50	42	50	62	67	64	?	83	33	50
am.w.	7.0	6.5	6.5	6	5.5	6	7	5.5	7	6
am.w. %	54	50	50	55	52	67	47	61	44	50
dis.am.	12	11	12	10	10.5	10	9	9	12	9
st.w.	2.0	2.0	2.0	1	1	1	1	1	2	1.5
st.l.	29.0	25.5	26.0	22	21	18	?	21	30	22
dis.v.p.	?	?	?	38	13?	9?	?	?	123	24
spic.chord	48	–	–	30	30.5	33	27.5	26.5	–	–
spic.arc	68	–	–	41	40.5	45.5	43	31	–	–
gub.l.	14.5	–	–	22	19	17	18	17	–	–

KEY TO GENERA OF DIPLOPELTIDAE

This nematode taxon was initially established as Diplopeltini by Filipjev (1918) and than rised to family by de Coninck & Schuurmans Stękhoven (1933). Lorenzen (1981) summarised morphological features of the family Diplopeltidae and reviewed its generic composition. The genera *Morlaixia* and *Edalonema* were added since 1981 (Vincx & Goubault, 1988; Holovachov & Sturhan, 2003). *Edalonema* Andrássy, 2007 is a new substituting name for *Adelonema* Holovachov & Sturhan, 2003 proposed by Andrássy (2007) on the ground that the genus name of *Adelonema* was preoccupied. Lorenzen (1981) came to conclusion that there no holapomorphies support holophyly of the taxon. Indeed, the family is composed of a dozen genera superficially dissimilar to one another in appearance and habitat. Thus, *Edalonema* and *Cylindrolaimus* dwell in soil while *Araeolaimus*, *Diplopeltis* and possibly *Pseudaraeolaimus* are confined mainly with phytal (submerged algae) and species of other genera are typical for sea bottom sediments.

The genus *Striatodora* Timm, 1961 was established on the base of an only juvenile specimen from the Bay of Bengal (Timm, 1961). Since there are very few characters known for this genus besides longitudinally striated cuticle the taxon is assumed here as doubtful.

A pictorial key (Fig. 2) and list of characters (Table 2) are proposed as a tool for identification of valid diplopeltid genera. Several pictures are original (*Araeolaimus*, *Campylaimus*, *Intasia*, *Southerniella*) while other images are modified and simplified from various sources (*Edalonema* – Holovachov & Sturhan, 2003; *Cylindrolaimus* – Andrássy, 1968; *Diplopeltis* – Gerlach, 1962; *Diplopeltula* – Voronov, 1982; *Metaraeolaimoides* – de Coninck, 1936; *Morlaixia* – Vincx & Gourbault, 1988; *Pararaeolaimus* – Lorenzen, 1973; *Pseudaraeolaimus* – Kito, 1981).

DESCRIPTION

Intasia Tchesunov et Miljutina gen. n.

Diagnosis. Diplopeltidae. Body elongate spindle-shaped. Cuticle finely cross-striated without lateral differentiation. Mouth opening terminal. Anterior sensilla visible as six outer labial papillae and four cephalic setae. Amphidial fovea rounded comma-like. No ocelli. Buccal cavity narrow tubular. Pharynx evenly muscular, with slight swelling a bit posterior to the buccal cavity and an oval widening at the posterior end. Ventral pore at the level of anterior part of pharynx. An unpaired prodelphic female gonad outstretched, with a posterior blind sack. Diorchic, anterior testis straight, posterior reflexed. Male spicules short, arcuate. Gubernaculum with dorso-caudal apophyses. Tail conical.

Differential diagnosis. Main differential characters of the genera within the family Diplopeltidae are summarized in the Table 2. *Intasia* shares prodelphic condition with three other diplopeltid genera *Edalonema*, *Cylindrolaimus* part. and *Morlaixia*. The new genus differs from *Edalonema* by finely striated somatic cuticle (*vs* coarsely annulated), comma-like amphidial fovea (*vs* slit-like), presence of the dorso-caudal apophysis in the gubernaculum and presence of caudal glands. The genus *Cylindrolaimus* includes both didelphic and a few prodelphic species. *Intasia* differentiates from the latters by presens of conspicuous apophyses of the gubernaculum and posterior swelling of the pharynx. Both *Edalonema* and *Cylindrolaimus* are strictly terrestrial taxa contrary to *Intasia*. The only marine prodelphic taxon within Diplopeltidae is *Morlaixia* from which *Intasia* differs by terminal mouth opening (*vs* subventral), comma-like amphidial fovea (*vs* rounded loop) and cylindrical buccal cavity. While comparing with didelphic diplopeltid genera, *Intasia* shares such a fine but important feature as slight swelling of the anterior pharynx with slightly modified internal cuticular lining with *Araeolaimus* and *Southerniella* (homology and significance of this structure are discussed by Gerlach 1963, 1966). The genus *Intasia* differs from *Araeolaimus* by rather cylindrical than conical buccal cavity, absence of ocelli, and prodelphic female ovary. *Intasia* resembles some species of *Southerniella* even in more details but differs sharply by prodelphic ovary.

Type and the only hitherto known species *Intasia monohystera* Tchesunov et Miljutina sp. n.

Etymology. Generic name *Intasia* is derived from INTAS (The International Association for the Promotion of Cooperation with Scientists from the New Independent States of the Former Soviet Union), an international program supported an exploration of the central deep region of the White Sea.

Intasia monohystera specimens from HMMV (Figs 3-5, Table 1)

Material. One male (holotype) and two females (paratypes) (Table 1).

Type locality. Barents Sea, Håkon Mosby Mud Volcano (HMMV) area (details in the Table 1).

Description. Body elongate spindle-shaped. Cuticle very thin and finely cross-striated, not differentiated laterally.

Cephalic end shaped as a truncate cone. Labial region set off very slightly. Mouth opening small. Lips likely not developed as such. Six small outer labial papillae at the margin of the labial region. Four relatively long cephalic setae at a short distance posterior to the labial region.

Amphidial fovea rounded comma-like, with distinct peripheral rim and short curved 'taillet' outgoing posterio-dorsally and spreading to a subcuticular amphidial nerve. There is a very fine concentric striation in the amphidial fovea.

There are short and scarce setae along the body. There are two individualized cervical setae situated in the same places in all specimens: first, the anterior cervical seta antero-ventrally from the amphidial fovea and second, postero-dorsally from the fovea.

Somatic cuticle apically widened around the mouth. Cheilostom small, cup-shaped. Tubular portion evidently comprising gymnostom and stegostom relatively long with sclerotized walls; it enveloped by a tissue cuff with weak longitudinal striation. Pharynx evenly muscular throughout its length except the narrowed anteriormost portion around the buccal cavity where the pharyngeal tissue is devoid of radial muscular striation. Pharynx swollen locally at a distance about two buccal tube lengths from the apex. Internal cuticular lumen here also swollen and differentiated with uncertain but very fine longitudinal structures. Posterior portion of the pharynx constitutes an ovoid widening, which internal cuticle does not differ from that of anterior part of the pharynx. Cardia nearly rectangular in shape, surrounded by the intestine tissue. There is a large glandular (?) cell body dorsally at the cardia, well visible in the female.

No evident renette cell found. There a small body ventral to the intestine and two small transparent cells

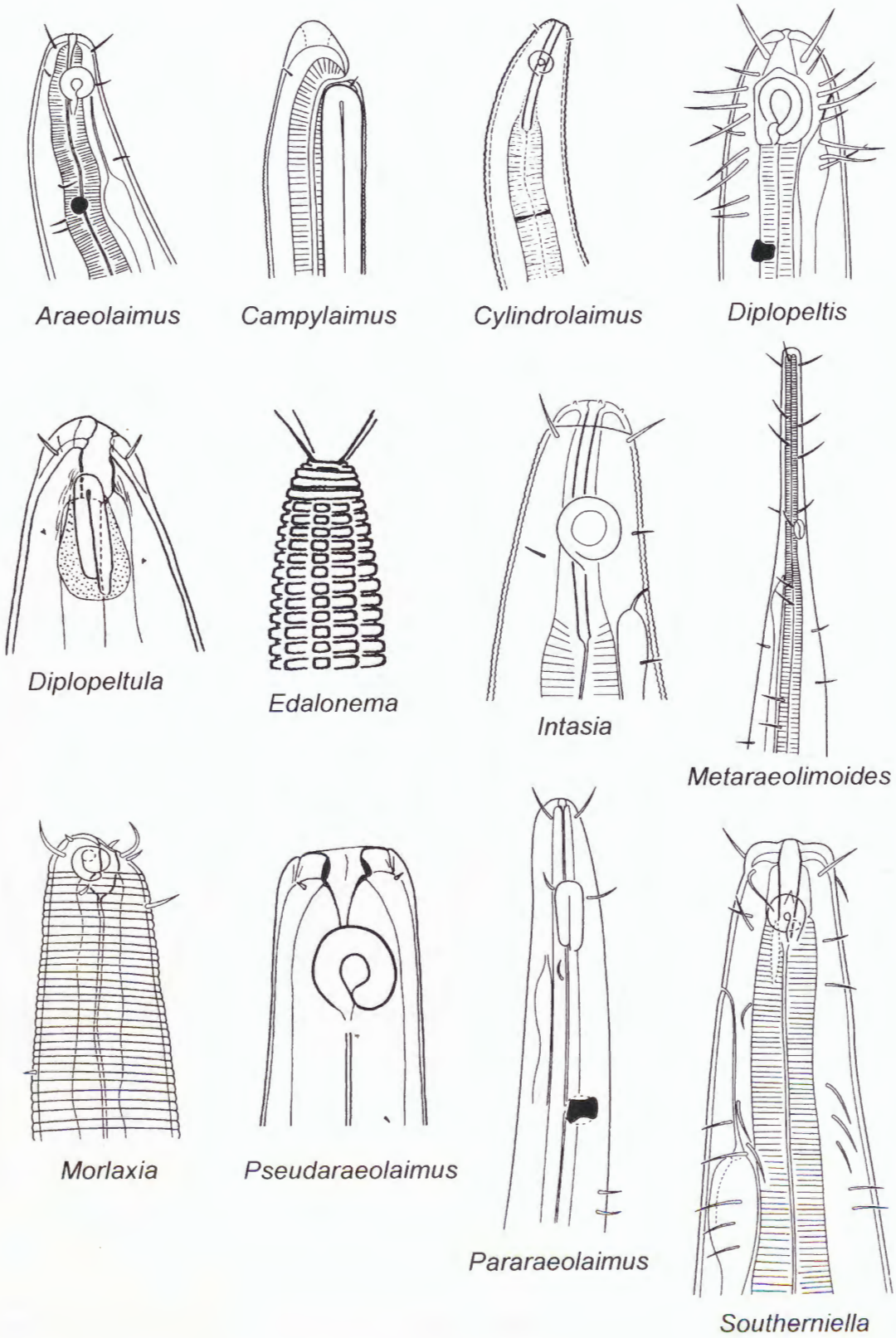

Fig. 2. Pictorial key for the genera of Diplopeltidae.

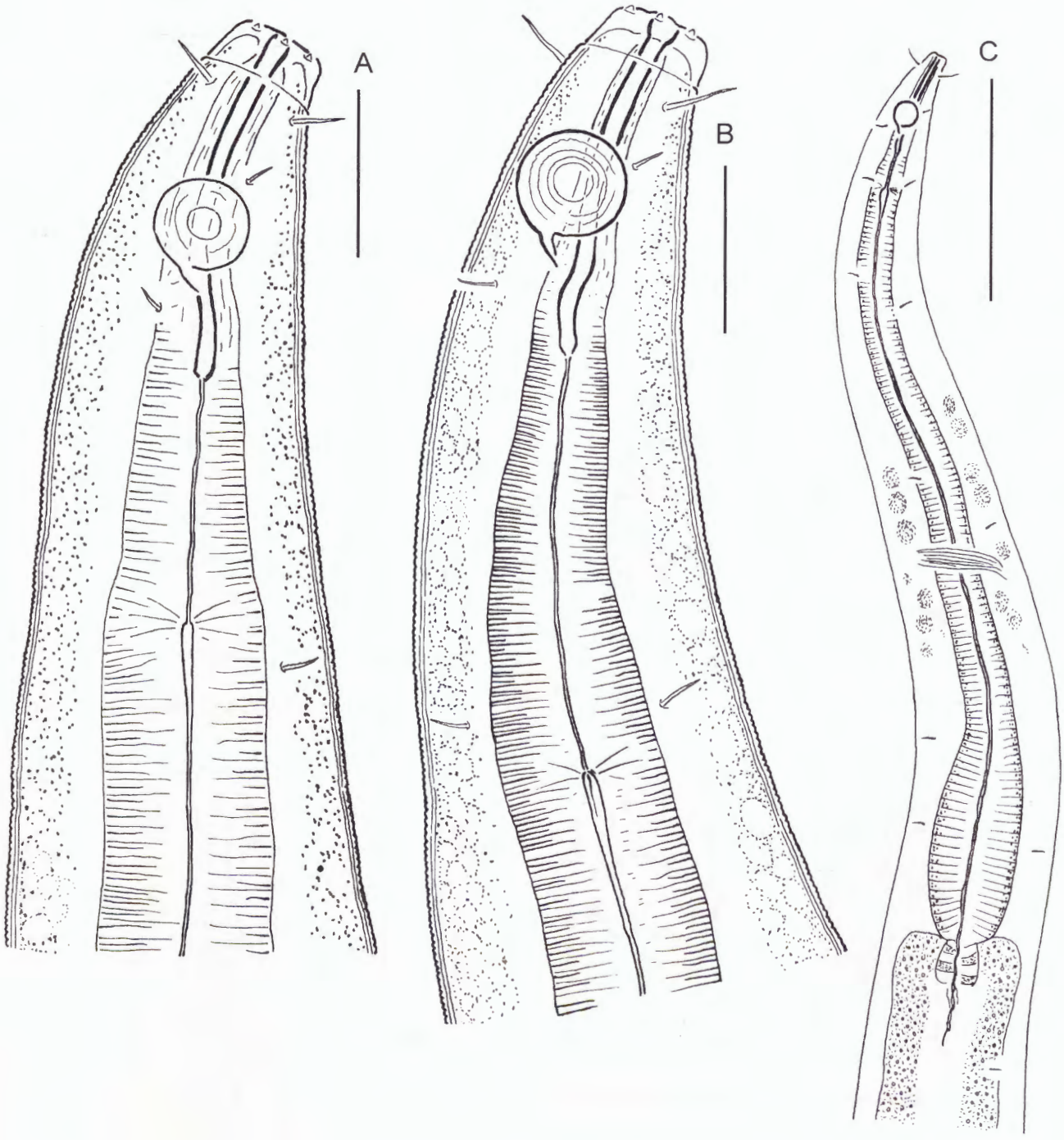

Fig. 3. *Intasia monohystera* n. g., n. sp. from Håkon Mosby, anterior body. A – cephalic end of the paratype female N1; B – cephalic end of the holotype male; C – anterior body region of the holotype male. Scale bars: A, B – 10 μm; C – 100 μm.

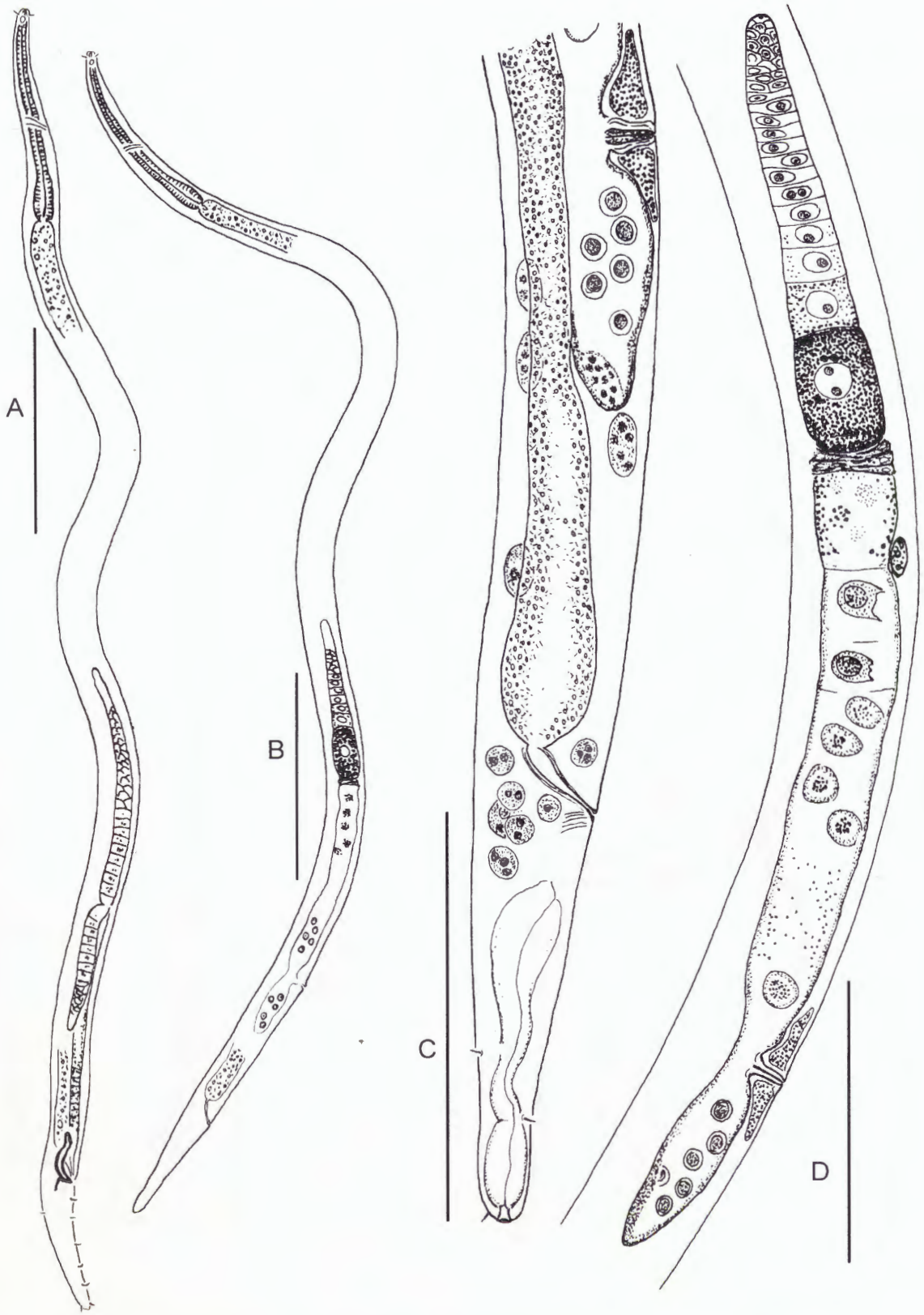

Fig. 4. *Intasia monohystera* n. g., n. sp. from Håkon Mosby, details. A – male, entire; B – female N1, entire; C – female N1, posterior body; D – female N1, reproductive organs. Scale bars: A, B – 200 μm; C – 100 μm; D – 200 μm.

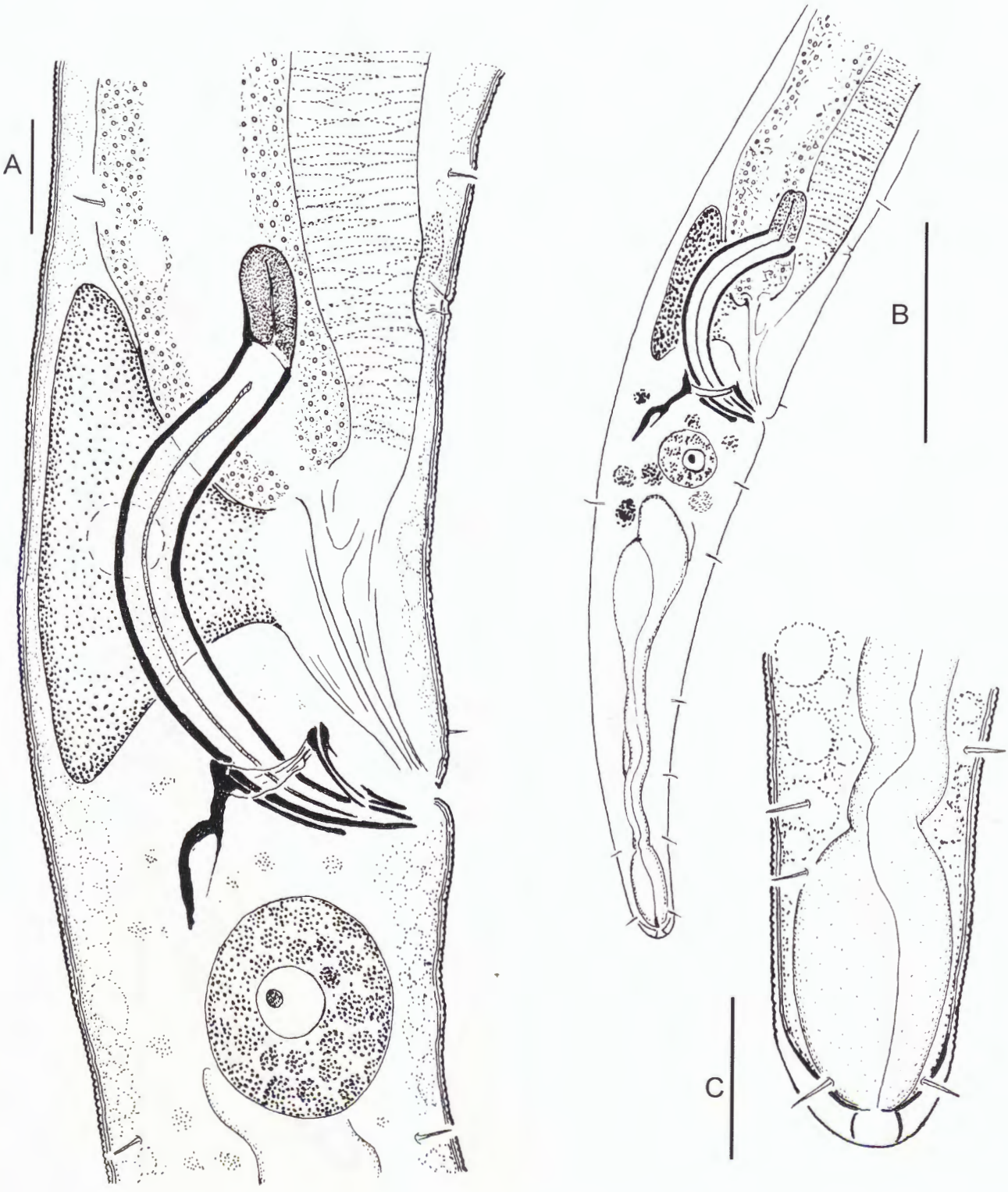

Fig. 5. *Intasia monohystera* n. g., n. sp. from Håkon Mosby, structures of the male. A – copulatory apparatus and pericloacal region; B – posterior body; C – tip of the tail. Scale bars: A, C – 10 μm; B – 50 μm.

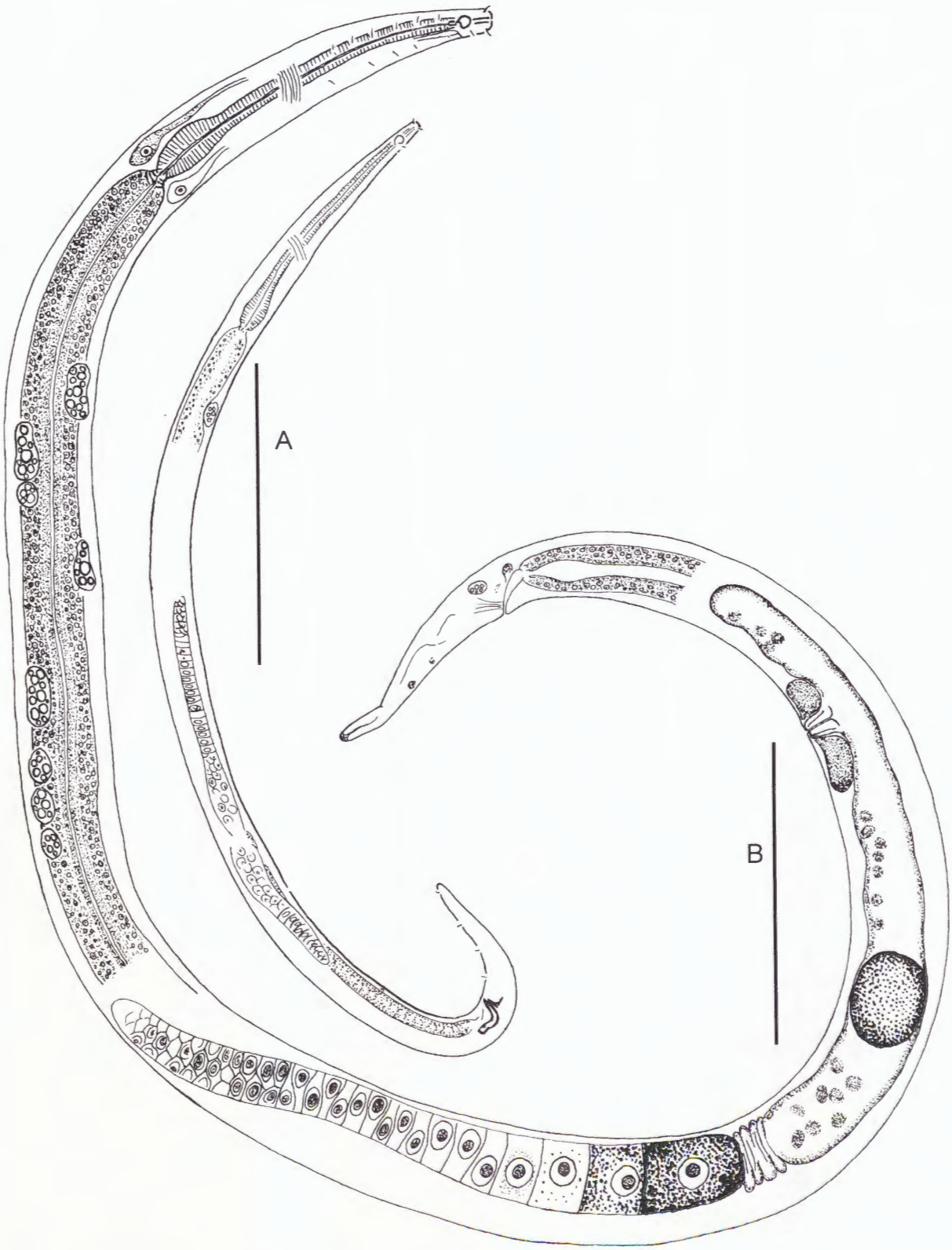

Fig. 6. *Intasia monohystera* gen. n., sp. n. from the White Sea, entire. A: male N1; B: female N1. Scale bars A, B – 200 μm.

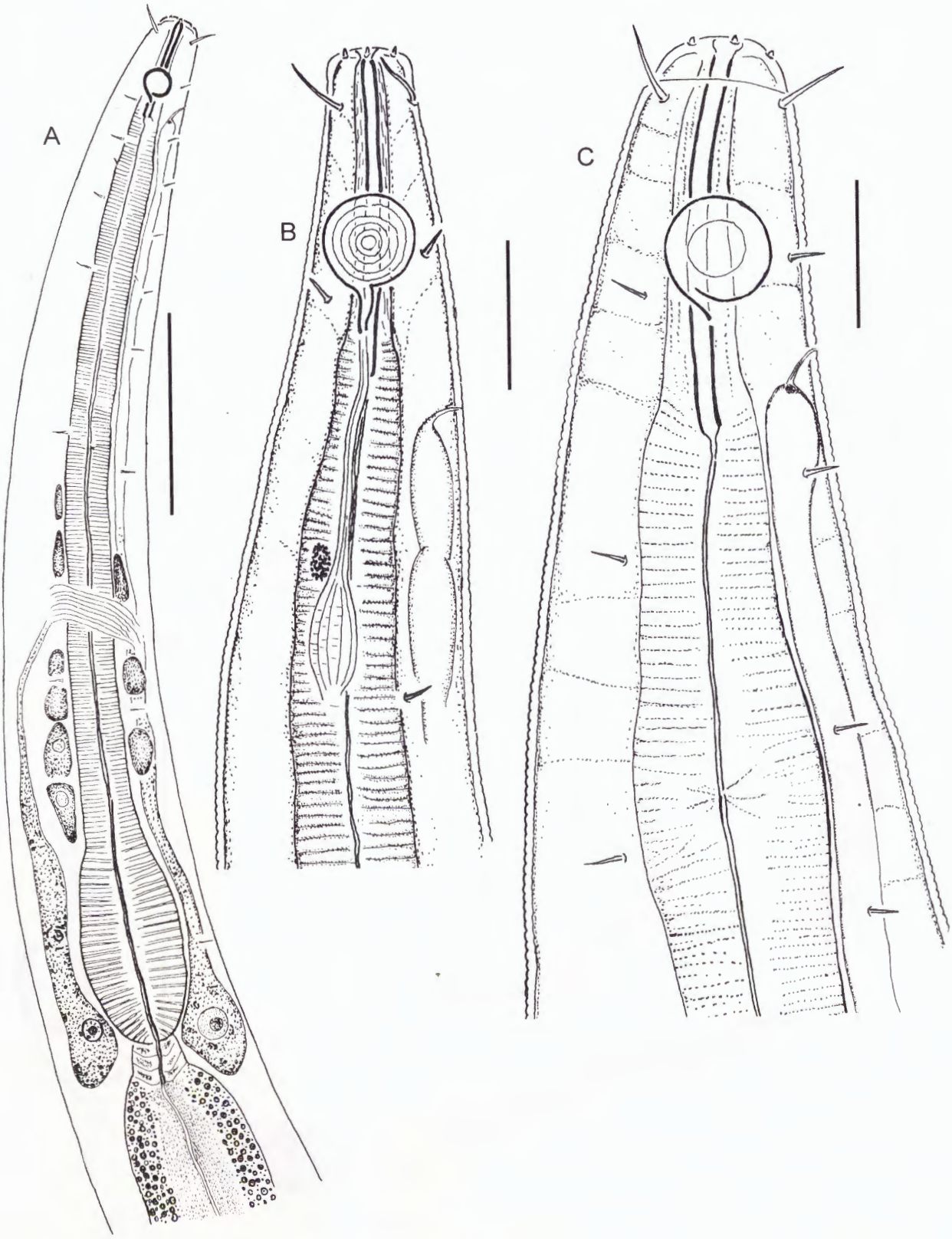

Fig. 7. *Intasia monohystera* gen. n., sp. n. from the White Sea, anterior body. A: anterior body of the female N1; B: cephalic end of the male N1; C; cephalic end of the female N1. Scale bars: A – 50 μm; B, C – 10 μm.

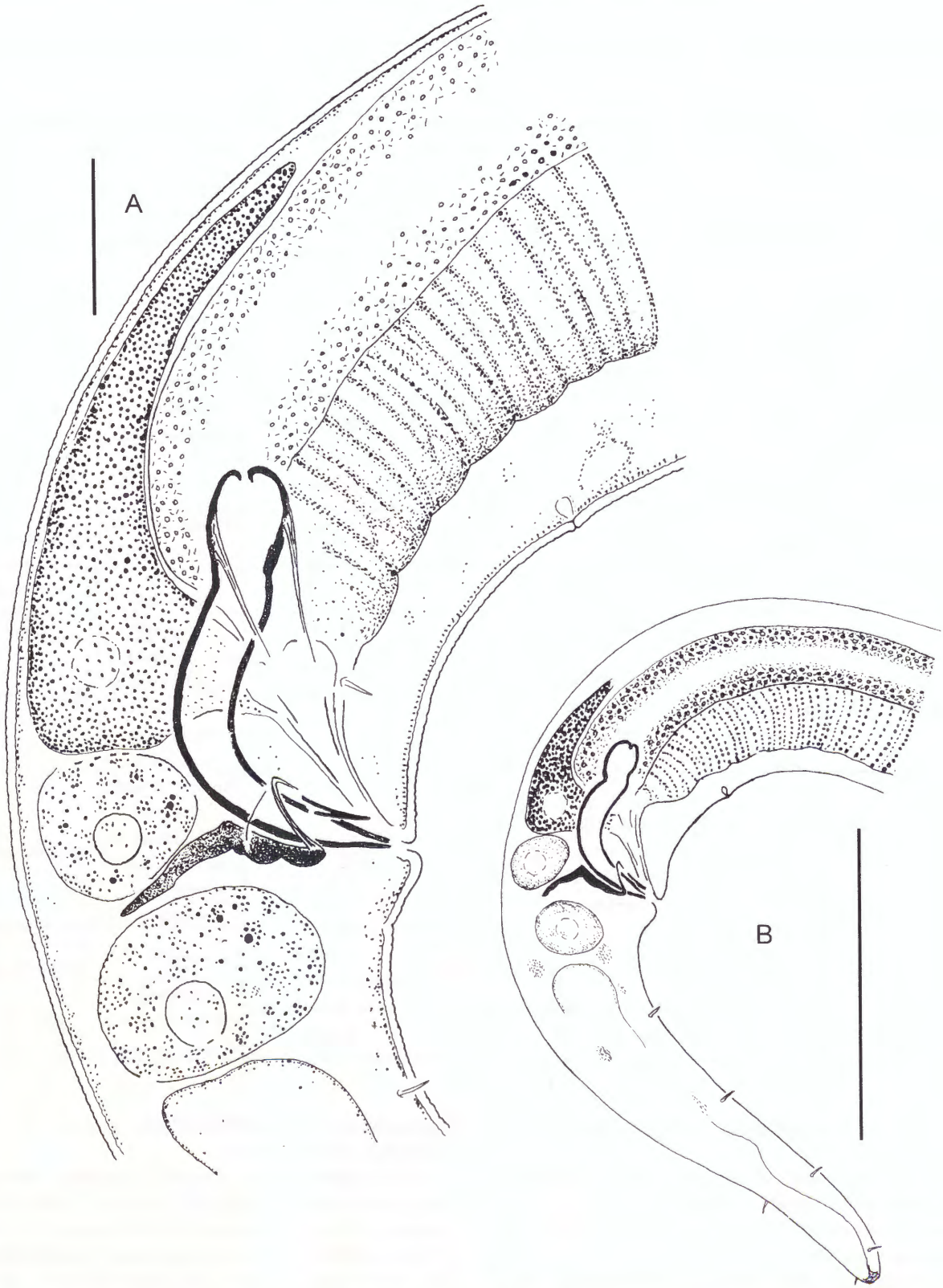

Fig. 8. *Intasia monohystera* gen. n., sp. n. from the White Sea, posterior body of the male N1. A: copulatory apparatus and pericloacal region; B: tail. Scale bars: A – 10 μm; B – 50 μm.

Table 2. Characters of valid genera of the family Diplopeltidae.

Characters	Genera					
	Araeolaimus De Man, 1888	***Campylaimus*** Cobb, 1920	***Cylindrolaimus*** De Man, 1880	***Diplopeltis*** Cobb in Stiles & Hassal, 1905	***Diplopeltula*** Gerlach, 1950	***Edalonema*** Andrassy, 2007
Cuticle	smooth or finely striated	annulated	finely striated	smooth or finely striated	finely to coarsely annulated, sometimes with longitudinal striae to alae	coarsely annulated, with longitudinal ridges
Position of the mouth	terminal	subdorsal or dorsal	terminal	terminal	terminal to subdorsal	terminal
Amphid's fovea	rounded loop	elongate loop with ventral branch extending to tail	rounded comma-like	elongate loop on cuticular shield	elongate loop, sometimes on cuticular shield	transverse slit
Buccal cavity	narrow, conical	small, weakly cuticularized	narrow cylindrical	not developed	not developed	tubular, weakly cuticularized
Pharynx	slightly swollen at anterior third	cylindrical; nerve ring shifted to posterior end	cylindrical	cylindrical	cylindrical evenly muscular or hardly discernible	cylindrical, with weak posterior widening
Ocelli	present	absent	absent	present	absent	absent
Ventral pore	just or a bit posterior to the amphid	at posterior half of the pharynx if present	just posterior to the amphid	at the level of amphids	from the level of cephalic setae to postnerval pharynx or even postcardial	closely posterior to nerve ring
Tail	conical	conical, often with short posterior cylindrical portion	conical	conical	conical or with posterior cylindrical portion and terminal widening	elongate conoid
Ovaries	paired	paired	paired or prodelphic	paired	paired	prodelphic, with postvulvar sack
Gubernaculum	with short dorso-caudal apophyses	plate-like or with weak apohyses	inconspicuous or absent	with dorso-caudal apophyses	with dorso-caudal apophyses or inconspicuous	plate-like

to the right of the intestine, both just posterior to the cardia.

Intestine with well developed inner glycocalyx lining; no cell borders discernible within the intestinal epithelium. Friable granular content in the intestine visible.

Prodelphic female branch outstretched and situated to the right of the intestine. Ovary separated by a sphincter from the proximal part. Short vagina perpendicular to the longitudinal body axis. Uterus continues posteriad to a short blind postvulvar sack containing small plump spermatozoa with relatively large nuclei. Pre- and postvulvar glands present.

Male reproductive system diorchic. Anterior testis outstretched, situated to the right of the intestine. Posterior testis reflexed, also to the right of the intestine. No spermatozoa visible within both male gonads. Vas deferens ventrally of the intestine, there is a distinct coarse-granular portion in the middle part of the vas deferens.

Spicules arcuate, with weakly sclerotized, elongate proximal knobs slightly turned dorsally. Distal ends of the spicules pointed beak-like.

Table 2. (continued). Characters of valid genera of the family Diplopeltidae

Characters	Genera					
	Intasia gen. n.	***Metaraeolaimoides*** de Coninck, 1936	***Morlaixia*** Vincx & Gourbault, 1988	***Pararaeolaimus*** Timm, 1961	***Pseudaraeolaimus*** Chitwood, 1951	***Southerniella*** Allgen, 1932
Cuticle	finely striated	finely striated	finely striated	smooth or striated	smooth	smooth or finely striated
Position of the mouth	terminal	terminal	subventral	terminal or slightly subdorsal	terminal	terminal
Amphid's fovea	rounded comma-like	rounded loop	rounded loop	rounded loop, large	elongate loop	rounded comma-like or rounded loop
Buccal cavity	narrow cylindrical	narrow cylindrical, thin walled	small, weakly cuticularized	small, shallow	small, inconspicuous	narrow cylindrical, short
Pharynx	cylindrical, with weak posterior widening	cylindrical, narrowed in the anterior body, with weak posterior widening	cylindrical, with more or less developed posterior bulb	cylindrical, evenly muscular	anteriorly slender, posteriorly glandular or indistinct because of overlying glandular cells	cylindrical, gradually widening posteriad; may be a bulbous swelling at anterior third
Ocelli	absent	present	absent	absent	present or absent	absent
Ventral pore	posterior to amphids if discernible	just posterior to the amphids	not mentioned	at a base of pharynx; renette may be associated with three other cells	close to anterior end; renette cell associated with several glandular cells	at anterior third of the pharynx, or more posteriorly; renette cell may be associated with some other cells
Tail	conical	conical	conical	conical	conical	conical, cylindro-conical or with slightly developed posterior cylindrical portion
Ovaries	prodelphic, with postvulvar sack	paired	prodelphic, with postvulvar sack	paired	paired	paired
Gubernaculum	with dorso-caudal apophyses	with short dorso-caudal apophyses	with short dorso-caudal apophyses	no apophyses	no apophyses	with or without apohyses

Gubernaculum with paired dorso-caudal apophyses, gutters and corner-like sclerotized structures at both lateral sides. There is a large triangular cell with coarse-granular content between spicules dorsally (dorsal rectal gland?). Preanal supplementary organs in shape of longitudinal series of five very inconspicuous pits. The anteriormost pit at the level of the granular portion of the vas deferens, the posteriormost one at the level of the spicule's knobs. There is a short midventral seta just before the cloacal opening.

Tail elongate conical, with rounded tip. There are two large rounded cells (left and right) in the basal part of the tail. Their cytoplasm is very

coarse-granular, but nuclei transparent with nucleolus. Transparent caudal gland cell bodies situated just posterior to the granular cells; there are terminal ampules of the caudal glands close to the tail tip. Terminal outlet of the caudal glands seemingly single. Short subdorsal and subventral setae on the tail.

Intasia monohystera specimens from the White Sea (Figs 6-8, Table 1)

Material. Five males and two females, glycerin slides (Table 1).

Locality. White Sea, Kandalaksha Trench (details in the Table 1).

Morphological remarks. Morphological remarks. Transversal striation of the cuticle hardly discernible.

Glandular cell body dorsally to the posterior pharynx. The cell body lengthens anteriad as a narrow extension to the nerve ring where gets lost. Shape of the dorsal gland is similar to that of the renette but the cell content differs in granularity.

Ventral pore and renette ampulla behind the amphidial fovea about at the level of the posterior end of the buccal cavity. Renette body situated ventrally to the cardia or posterior to the cardia ventrally to the intestine. A small pseudocoelomocyte just posterior to the renette cell body may be visible. There are a few other vacuolized pseudocoelomocytes in various sites of the body. The number and position of the pseudocoelomocytes varies greatly among specimens.

Female branch entirely or partly to the right of the intestine (six females) or to the left of the intestine (one female). Postvulvar sack ventrally and to the left of the intestine.

Anterior outstretched testis to the right of the intestine and posterior reflexed testis to the left of the intestine (two males), anterior testis to the left and posterior testis to the right of the intestine (one male), both anterior and posterior testes to the right of the intestine (three males) or both anterior and posterior testes to the left of the intestine (one male). Two to three midventral supplementary pores and canals may be visible anterior to the cloaca.

Tail tip obviously very sticky and often charged with a pinch of detritus adhered.

LOCALITIES

First locality – Håkon Mosby Mud Volcano (HMMV) is situated on the southwestern Barents Sea slope (this site belongs to the Norwegian Sea according to other sources). It is an active mud-oozing and methane-venting seep, located at 1250 m water depth at 72°00.25′N/14°43.50′E. The caldera has a 1-km-diameter circular shape and a relief of 8-10 m in height. There is a central zone of 200 m diameter with highly reduced, methane-containing nonstratified sediments in the caldera, this is a thermal 'eye' of the volcano. Temperatures at about 30 cm sediment depth are up to 11°C. Beyond the central zone, sediments containing nonassociated methane are replaced by gas hydrate-containing ones. Large areas in the southern and southwestern part of the volcano are covered by widespread whitish patches of bacterial mats of 0.1 to 0.5 cm thickness. Bacterial mats cover strongly reduced and gas-saturated sediments with Eh values of about -300 mV. The outer zone of the caldera consists of sediments that are oxidized from the surface down to approximately 10 cm into the sediment column. This area is densely populated by two species of small perviate pogonophoran tubeworms, *Sclerolinum contortum* and *Oligobrachia haakonmosbiensis*, harbouring symbiotic aerobic methane- and suphur-oxidizing bacteria (Gebruk *et al.*, 2003). The station 263b containing *Intasia monohystera* fits just to a pogonophoran field of the caldera southern rim. This is a fine sediment with overall bacterial numbers 5.29×10^8 cells cm^{-3} in the uppermost centimetre and 15.98×10^8 cells cm^{-3} in the column 0-5 cm; bacterial biomass is 9.24 μg C_{org} cm^{-3} and 28.80 μg C_{org} cm^{-3}, respectively. The dominant meiofauna taxon was nematodes (63%), followed by foraminiferans (26%) and then minor quantities of other taxa (11%). Nematode density is evaluated as 598 specimens 10 cm^{-2} in the uppermost centimetre and 2728 specimens 10 cm^{-2} in the column 0-5 cm (Soltwedel *et al.*, 2005).

Second locality, Kandalaksha Trench with maximal depth 340 m is situated along the longitudinal axis of the elongated north-west Kanda laksha Bay of the White Sea, an inner sea basin in the North Russia. The deep regions of the White Sea is populated by species of shallow water origin and devoid of true bathyal benthic species; hence this area is usually designated as pseudobathyal zone in Russian sources (Berger *et al.*, 2001). Water temperature near bottom does not exceed -1.4°C all the year round and salinity about 29.5-30‰. The sediment is very fine, with pelite fraction dominating. Oxygen content in the nearbottom water is rather high (6.6-7.8 ml l^{-1}) that ensures penetration of the oxygen into the sediment to the depth 10 cm (Strekopytov, 2000).

Among macrofauna, species gathering and swallowing sediment (i. e., clam *Portlandia arctica*) predominate in benthic communities (Naumov & Fedyakov, 2000). Density of meiobenthic organisms varies from one sample to another from 1210 to 2351 ind. 10 cm^{-2}. The most abundant taxa are Foraminifera, Nematoda and Copepoda Harpacticoida, at that the nematodes comprise *ca.* 69% of all metazoan organisms. The nematodes are represented by 55 species of 18 families; *Sabatieria ornata* dominates in the community and is followed by *Aponema* sp. and *Filipjeva filipjevi*.

Thus, *Intasia monohystera* has been recorded in two sites widely separated by hundreds kilometers and differing in depth, bottom temperature and macrobenthic community. This example shows the possible range of geographic area and diapason of environmental conditions for one nematode species that should be considered by evaluating of nematode diversity and pattern of distribution of species in the deep sea.

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Чесунов А.В., Милютина М.А. Новая свободноживущая нематода *Intasia monohystera* gen. n., sp. n. (Nematoda, Araeolaimida, Diplopeltidae) из Баренцева и Белого морей и ключ для определения родов Diplopeltidae.

Резюме. *Intasia monohystera* gen. n., sp. n. (Diplopeltidae) описана из двух географических точек: грязевого вулкана Хаакон Мосби в Баренцевом море (глубина 1294 м) и Кандалакшского желоба Белого моря (глубины 270-287.5 м). Новый род *Intasia* характеризуется тонко-кольчатой кутикулой без латеральной дифференциации, терминальным ротовым отверстием, округлой амфидиальной фовеей в виде запятой, узкой трубчатой буккальной камерой, равномерно мышечным фаринксом, положением вентральной поры на уровне передней части фаринкса, непарным передним яичником с отходящим от матки задним слепым мешком. Новый род близок к Araeolaimus и Southerniella, от которых отличается продельфной гонадой. Предлагается картиночный ключ для определения всех двенадцати родов Diplopeltidae. Род *Striatodora* Timm, 1961 из-за недостаточного описания признаётся сомнительным (genus *incerta sedis*).