



**Identification keys to genera and species
of the suborder Plectina, order Plectida
(Nematoda)**

Oleksandr Holovachov

Swedish Museum of Natural History & ArtDatabanken, 2016

**Identification keys to genera and species
of the suborder Plectina, order Plectida
(Nematoda)**

Oleksandr Holovachov

Swedish Museum of Natural History & ArtDatabanken, 2016

Last updated: 18 June 2016

Classification of the suborder Plectina used in this key

Classification is based on Holovachov (2014) and Holovachov & Vanaverbeke (2016).

Family Ohridiidae

Domorganus

Family Creagrocercidae

Creagrocercus

Family Aphanolaimidae

Aphanolaimus

Paraphanolaimus

Aphanonchus

Anonchus

Family Leptolaimidae

Leptolaimus

Anomonema

Antomicron

Leptolaimoides

Leptoplectonema

Manunema

Paraplectonema

Family Rhadinematidae

Rhadinema

Cricolaimus

Lavareda

Family Camacolaimidae

Deontolaimus

Anguinoides

Dagda

Diodontolaimus

Ionema

Listia

Neocamacolaimus

Onchiolistia

Family Camacolaimidae (cont.)

Procamacolaimus

Onchium

Smithsoninema

Loveninema

Alaimella

Stephanolaimus

Setostephanolaimus

Family Chronogastridae

Chronogaster

Keralanema

Kischkenema

Rugoster

Caribplectus

Cynura

Family Plectidae

Anaplectus

Arctiplectus

Perioplectus

Pakira

Plectus

Hemiplectus

Ereptonema

Neotylocephalus

Wilsonema

Tylocephalus

Yeatesinia

Family Metateratocephalidae

Metateratocephalus

Euteratocephalus

Holovachov O. (2014). 7.16 Order Plectida Gadea, 1973. In: Schmidt-Rhaesa A. (ed.) *Handbook of Zoology. Gastrotricha, Cycloneuralia, Gnathifera. Volume 2: Nematoda*. de Gruyter: 487-535.

Holovachov O., Vanaverbeke J. & Gibson D. (2016). Plectida. In: Guilini K., Bezerra T.N., Deprez T., Fonseca G., Holovachov O., Leduc D., Miljutin D., Moens T., Sharma J., Smol N., Tchesunov A., Mokievsky V., Vanaverbeke J., Vanreusel A., Vincx, M. (2016) *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=458811>.

Key to the genera

* **Genera, for which keys to species are not given, are as follows:** monotypic (*Anguinoides*, *Arctiplectus*, *Cricolaimus*, *Hemiplectus*, *Keralanema*, *Neocamacolaimus*, *Pakira*, *Smithsoninema*, *Yeatesinia*), animal parasitic during adult stage (*Creagrocercus*), genera in urgent need of revision (*Aphanolaimus*, *Chronogaster*, *Ionema*, *Plectus*).

1. Pharynx with median and basal swellings;
male with single precloacal papilliform sensillum *Domorganus* (p. 8)
- Pharynx cylindrical or with only basal bulb 2
2. Pharynx uniformly cylindrical, without any subdivisions;
uniformly muscular or with glandular basal part 3
- Pharynx subdivided into corpus, isthmus and basal bulb by discontinuities
in muscular tissue; basal bulb often with thickened lumen or with valves 21
3. Labial region with apical projection located in-between subventral lips;
sclerotized cephalic framework present *Loveninema* (p. 24)
- Apical projection and cephalic framework present 4
4. Nerve ring located at the base of the pharynx *Neocamacolaimus**
- Nerve ring located at level of the middle of the pharynx 5
5. Excretory pore opens at level of nerve ring; both testes equally developed 6
- Excretory pore opens inside the cheilostom; anterior testis non-functional 18
6. Amphid in shape of transverse slit 5
- Amphid unispiral 6
5. Outer labial sensilla papilliform (4 setae) *Stephanolaimus* (p. 24)
- Outer labial sensilla setiform (6+4 setae) *Setostephanolaimus* (p. 25)
6. Stoma consist of sclerotized ring with two or six directed projections 7
- Stoma without sclerotized ring, but with teeth or denticles 9
7. Amphid circular *Rhadinema* (p. 19)
- Amphid loop-shaped 8
8. Six projections directed forward *Lavareda* (p. 19)
- Two projections directed forward *Cricolaimus**
9. Males without apparent precloacal, ventromedian supplements 10
- Males with alveolar supplements (often hard to discern) 12
- Males with tubular, and sometimes alveolar ventromedian supplements 13
10. Female stout and spindle-shaped, male thin and attenuated *Smithsoninema**
- Female and male similar in size and proportions 11

11.	Ocelli present	<i>Ionema</i> *	
–	Ocelli absent	<i>Alaimella</i>	(p. 24)
12.	Posterior part of pharynx muscular; buccal armament consists of odontium and onchiostyle	<i>Deontolaimus</i>	(p. 20)
–	Posterior part of pharynx glandular; buccal armament consists of onchiostyle only	<i>Onchium</i>	(p. 23)
13.	Male with tubular and alveolar precloacal ventromedian supplements		14
–	Male only with tubular precloacal ventromedian supplements		15
14.	Buccal armament in shape of dorsal onchiostyle	<i>Onchiolistia</i>	(p. 22)
–	Buccal armament absent	<i>Listia</i>	(p. 22)
15.	Labial odontia present		16
–	Onchiostyle present		17
16.	Single odontium present on dorsal and each subventral labial wall	<i>Dagda</i>	(p. 21)
–	Single odontium present on each subventral labial wall	<i>Diodontolaimus</i>	(p. 21)
17.	Pharynx uniformly muscular	<i>Procamacolaimus</i>	(p. 23)
–	Basal part of pharynx glandular	<i>Anguinoides</i> *	
18.	Amphid with oval aperture and larger subcuticular fovea; stoma broad; cheilostom with six digitate projections	<i>Anonchus</i>	(p. 10)
–	Amphid unispiral, with or without central elevation; stoma cylindrical, small and narrow		19
19.	Cheilostom is surrounded by peristomatal vestibulum; alveolar supplements usually present in males	<i>Aphanonchus</i>	(p. 9)
–	Cheilostom narrow undifferentiated, peristomatal vestibulum absent; alveolar supplements absent		20
20.	Gymnostom broad cylindrical, barrel-shaped; amphid without prominent central elevation	<i>Paraphanolaimus</i>	(p. 9)
–	Gymnostom short and narrow, with granule-shaped rhabdia; when gymnostom is barrel-shaped then amphid with prominent central elevation	<i>Aphanolaimus</i> *	
21.	Excretory duct long and cuticularised; basal bulb often with a valve; stoma funnel-shaped, subdivided into cheilo-, gymno- and stegostom; each female gonad with single axial spermatheca or spermatheca absent		22
–	Excretory duct usually short (except <i>Paraplectonema</i>); basal bulb without valve; stoma uniformly cylindrical; each female gonad with two offset sack-like spermathecae		39
22.	Labial region crown-shaped; lips leaf-like with sclerotized edges		23
–	Labial region not crown shaped (if with complex expansions and projections, than bilaterally or biradially symmetrical); lips not sclerotized		24

23.	Relaxed body and tail generally curved ventrad; labial region flat, continuous with body contour	<i>Euteratocephalus</i> (p. 32)
–	Relaxed body usually straight or curved dorsad, tail curved dorsad; labial region high, strongly offset from body contour	<i>Metateratocephalus</i> (p. 31)
24.	Amphid in a shape of transverse slit	25
–	Amphid unispiral or horse-shoe shaped	26
25.	Basal bulb and butterfly valve present; caudal glands present	<i>Anaplectus</i> (p. 27)
–	Basal bulb and butterfly valve absent; caudal glands absent	<i>Pakira</i> *
26.	Basal bulb weak or absent;	27
–	Basal bulb and valve present	29
27.	Male with two precloacal tubular supplements	28
–	Male with more than 15 precloacal tubular supplements	<i>Caribplectus</i> (p. 27)
28.	Stoma barrel-shaped; spinneret small and weakly sclerotized	<i>Hemiplectus</i> *
–	Stoma funnel-shaped; spinneret large, strongly sclerotized;	<i>Cynura</i> (p. 27)
29.	Basal bulb equipped with longitudinal denticulate ridges; posterior stegostom section long; female reproductive system monoprodelphic	30
–	Basal bulb equipped with transverse plates (smooth, denticulate or corrugated); posterior stegostom section short; female reproductive system didelphic	32
30.	Cuticular annules divided into plates bearing lateral spines; tail with filliform terminus	<i>Keralanema</i> *
–	Cuticle with longitudinal ridges; tail terminus with four hook-like spines	<i>Rugoster</i> (p. 26)
–	Cuticle without ornamentation; tail terminus different	31
31.	Amphid horse-shoe shaped	<i>Chronogaster</i> *
–	Amphid unispiral (circular)	<i>Kischkenema</i> (p. 26)
32.	Labial region expanded laterally, bilateral; oral opening shifted dorsally; subdorsal and subventral sensilla different in size and position	<i>Yeatesinia</i>
–	Labial region not expanded laterally or expanded dorso-ventrally, radial; oral opening apical; all cephalic sensilla same in size and position	33
33.	Labial region with biradially arranged cuticular outgrowths; cervical expansions present; cephalic sensilla leaf-shaped	34
–	Labial region with six equal lips; cuticular outgrowths and cervical expansions absent; cephalic sensilla setiform	37
34.	Cornua without tines, cylindrical or flat; flabella absent; median ridges present	<i>Tylocephalus</i> (p. 30)
–	Cornua with 2-5 tines; flabella and fimbriae present; median ridge absent	35

35. Cervical expansions distinctly annulated *Ereptonema* (p. 29)
 – Cervical expansions visually smooth 36
36. Midlateral projection short; four flabella *Neotylocephalus* (p. 29)
 – Midlateral projection long, digitate; two flabella *Wilsonema* (p. 30)
37. Usually parthenogenetic; spermatheca absent *Plectus**
 – Usually bisexual; spermatheca developed 38
38. Lips each with three lobes facing towards the oral opening *Perioplectus* (p. 28)
 – Lips small and simple *Arctiopectus**
39. Amphid a transverse slit, located far posterior to stoma base *Anomonema* (p. 16)
 – Amphid different in shape, located at level with stoma 40
41. Amphid longitudinally oval *Leptolaimoides* (p. 17)
 – Amphidial loop-shaped, with or without central shield *Antomicron* (p. 16)
 – Amphidial unispiral 42
42. Basal part of the pharynx pear- or guitar-shaped *Manunema* (p. 18)
 – Basal part of the pharynx not pear- or guitar-shaped 43
43. Amphid at the base of labial region; excretory duct long *Paraplectonema* (p. 18)
 – Amphid located posterior to labial region; excretory duct short 43
44. Organellum ovale present *Leptoplectonema* (p. 18)
 – Organellum ovale absent *Leptolaimus* (p. 11)

Genus *Domorganus* Goodey, 1946

Classification based on: Vanaverbeke J. (2013). *Domorganus* Goodey, 1946. In: Guilini K., et al. (2015). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227284>

1. Parthenogenetic species *D. beklemishevi*
– Bisexual species 2
2. Gubernaculum absent; excretory pore located anterior to
pharyngo-intestinal junction *D. suecicus*
– Gubernaculum present; excretory pore located at level with or posterior to
pharyngo-intestinal junction 3
3. Gubernaculum platelike, without apophyses 4
– Gubernaculum with apophyses 5
4. Spicules 10-13 μm long *D. navarrensis*
– Spicules 20-23 μm long *D. delgadoi*
– Spicules 23-35 μm long *D. macronephriticus*
5. Gubernaculum with two apophyses *D. subtilis*
– Gubernaculum with single apophysis 6
6. Cephalic setae 9-11 μm long; spicules 50-54 μm long *D. gigas*
– Cephalic setae less than 4 μm long; spicules less than 45 μm long 7
7. Spicules 32 μm long; excretory pore located 40 μm posterior to
pharyngo-intestinal junction *D. bathubius*
– Spicules 36-41 μm long; excretory pore located 12-14 μm posterior to
pharyngo-intestinal junction *D. acutus*

Genus *Creagrocercus* Baylis, 1943

Classification based on: Holovachov O. (2016). *Creagrocercus* Baylis, 1943. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=868860>

Key not available.

Genus *Aphanolaimus* de Man, 1880

Classification based on: Holovachov O. & Vanaverbeke J. (2016). *Aphanolaimus* de Man, 1880. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=227255>

Key not available.

Genus *Paraphanolaimus* Micoletzky, 1923

Classification based on: Holovachov O. (2016). *Paraphanolaimus* Micoletzky, 1922. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=227259>

1.	Females	2
–	Males	7
2.	Vagina distinctly bent anteriad, ovoviviparous	3
–	Vagina straight, oviparous	4
3.	Lateral field starting at anterior third of pharyngeal region	<i>P. behningi</i>
–	Lateral field starting immediately posterior to amphid	<i>P. embryonophorus</i>
4.	Stoma strongly cuticularized	<i>P. paraguayensis</i>
–	Stoma weakly cuticularized	5
5.	Cuticular annules 2.0-2.6 µm wide, spermathecae undeveloped, probably telytocous	<i>P. terrestris</i>
–	Cuticular annules 1.0-2.0 µm wide, spermathecae developed, bisexual	6
6.	Unstriated tail terminus swollen	<i>P. tahoensis</i>
–	Unstriated tail terminus cylindrical	<i>P. anisitsi</i> and <i>P. latescens</i>
7.	Stoma strongly cuticularized, 16-19 tubular supplements, neck setae absent, second supplement not elevated	<i>P. paraguayensis</i>
–	Stoma weakly cuticularized, 8-17 tubular supplements, neck setae present, second supplement elevated	8
8.	Spicules 80-110 µm long	<i>P. behningi</i>
–	Spicules less than 40 µm long	9
9.	Spicules 21-22 µm long	<i>P. latescens</i>
–	Spicules 25-36 µm long	10
10.	Unstriated tail terminus swollen	<i>P. tahoensis</i>
–	Unstriated tail terminus cylindrical	<i>P. anisitsi</i>

Genus *Aphanonchus* Coomans & Raski, 1991

Classification based on: Holovachov O. & Mokievsky V. (2016). *Aphanonchus* Coomans & Raski, 1991. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine*

Nematodes. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=836218>

1.	Vagina with strong sclerotisations (pars refringens vaginae developed)	2
–	Vagina without sclerotisations (par refringens vaginae undeveloped)	5
2.	Alveoli present in female	3
–	Alveoli absent in female	4
3.	Neck setae in female absent, alveoli in pre- and postvulval regions; spicules 37-41 μm	<i>A. intermedius</i>
–	Neck setae in female present, alveoli only in prevulval region; spicules 30-34 μm	<i>A. bayensis</i>
4.	Male with 16-20 tubular supplements	<i>A. multipapillatus</i>
–	Male with 10-11 tubular supplements	<i>A. orientalis</i>
5.	Male without alveolar supplements	<i>A. longiceras</i>
–	Male with alveolar supplements	6
6.	Alveoli present in female, neck setae absent in female, present in male; male with 20 alveolar supplements; spicules 39 μm	<i>A. europaeus</i>
–	Alveoli absent in female, neck setae present in female and in male; male with 54-80 alveolar supplements; spicules 35.5-43 μm	<i>A. africanus</i>
–	Alveoli absent in female, neck setae absent in female and in male; male with 39-66 alveolar supplements; spicules 30-34 μm	<i>A. obesus</i>

Genus *Anonchus* Cobb, 1913

Classification based on: Holovachov O. (2016). *Anonchus* Cobb, 1913. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=227262>

1.	Females	2
–	Males	10
2.	Reproductive system monodelphic, prodelphic	3
–	Reproductive system didelphic, amphidelphic	5
3.	Vagina perpendicular to body axis; posterior stoma section very shallow	<i>A. winiszewskae</i>
–	Vagina directed anteriorly at an angle to body axis; posterior stoma section as long as wide	4
4.	Vagina bent anteriorly; epidermal glands 89-102	<i>A. pulcher</i>
–	Vagina S-curved anteriorly; epidermal glands 48-73	<i>A. maculatus</i>
5.	Stoma at least 2.7 times as long as wide	6
–	Stoma 2.2 times as long as wide or less	7

6. Amphid aperture 20-30 μm from anterior end *A. palaeotropicus*
 – Amphid aperture 6-8 μm from anterior end *A. laureatus* and *A. millelacunatus*
7. Antermost body pore anterior to amphid *A. venezolanus*
 – Antermost body pore posterior to amphid 8
8. Length of stoma 20 μm or more *A. mirabilis*
 – Length of stoma 15 μm or less 9
9. Lateral field starting about 35 μm from anterior end *A. mangrovi*
 – Lateral field starting more than 60 μm from anterior end *A. coomansi*
10. Tubuli and alveoli absent *A. laureatus*
 – Tubuli always present, alveoli present or absent 11
11. One tubule; antermost body pore anterior to amphid 12
 – Tubuli 9-72 13
12. Alveoli more than 800; one pair of preloacal setae;
 subcephalic setae absent *A. millelacunatus*
 – Alveoli absent; 10 pairs of preloacal setae;
 four subcephalic setae present *A. venezolanus*
13. Alveoli absent; row of tubuli extending to pharyngeal region *A. mirabilis*
 – Alveoli present; row of tubuli extending to midbody 14
14. Spicules > 70 μm long, usually 28 or more tubuli *A. pulcher*
 – Spicules < 60 μm long, usually 28 or less tubuli 15
15. Posterior stoma section very shallow *A. winiszewskae*
 – Posterior stoma section as long as wide 16
16. Nine tubuli; gubernaculum platelike, without apophysis *A. mangrovi*
 – 13-24 tubuli; gubernaculum rectangular with dorsal apophysis
 or without apophysis 17
17. Stoma 2.8 times as long as wide, 25 μm long,
 gubernaculum without apophysis *A. palaeotropicus*
 – Stoma 1.2-2.0 times as long as wide, 6-19 μm long 18
18. Gubernaculum platelike without apophysis *A. coomansi*
 – Gubernaculum rectangular (triangular) with dorsal apophysis *A. maculatus*

Genus *Leptolaimus* de Man, 1876

Classification based on: Holovachov O. (2016). *Leptolaimus* de Man, 1876. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at

1.	Males without supplements (females unknown)	<i>L. vitielloi</i>	
–	Only males with supplements; females without supplements		2
–	Both males and females with supplements		42
2.	Males with alveolar supplements only		3
–	Males with tubular and alveolar supplements		5
–	Males with tubular supplements only		16
3.	Males with 4 alveolar supplements	<i>L. primus</i>	
–	Males with 11-35 alveolar supplements		4
4.	Males with 11 alveolar supplements; gubernaculum with caudal apophysis	<i>L. pocillus</i>	
–	Males with 35 alveolar supplements; gubernaculum with dorsal apophysis	<i>L. pumicosus</i>	
5.	Amphid close to anterior end (2-5 μm from it); lateral field beginning at the posterior edge of amphidial fovea; males usually with 2 tubular supplements	<i>L. donsi</i>	
–	Amphid further from anterior end, at least 4-5 μm or more; lateral field beginning posterior to amphid; males either with single, or 3 or more tubular supplements		6
6.	Male with single tubular and several (9-15) alveolar supplements	<i>L. secundus</i>	
–	Male with 2 or more tubular supplements, and few to many alveolar supplements		7
7.	Spicules 64-75 μm long, equal to 3 cloacal body diameters in length	<i>L. longispiculus</i>	
–	Spicules relatively short, 13-34 μm long, about 1-1.5 cloacal body diameters in length		8
8.	Males with 3 tubular supplements		9
–	Males with 4 or more tubular supplements		10
9.	Body long, over 1 mm in length; alveolar supplements 56 in number	<i>L. leptaleus</i>	
–	Body short, under 0.7 mm long; alveolar supplements 8-9 in number	<i>L. quartus</i>	
10.	Cephalic sensilla papilliform		12
–	Cephalic sensilla setiform		13
11.	Males with 5 tubular and 9 alveolar supplements; spicules 26 μm long ...	<i>L. sebastiani</i>	
–	Males with 4 tubular and 12-24 alveolar supplements; spicules 13-19 μm long		12
12.	Males with alveole-like structure on the ventral side of tail; females with T-shaped pars refringens vaginae	<i>L. papilliger</i>	
–	Males without alveole-like structure on the ventral side of tail; females without pars refringens vaginae	<i>L. pumilus</i>	

13.	Males with 6-8 tubular supplements and 25-42 alveolar supplements	14
–	Males with 4-6 tubular supplements and 2-10 alveolar supplements	15
14.	Alveolar supplements 25-27 in number; spicules 16-17 μm long	<i>L. cupulatus</i>
–	Alveolar supplements 36-42 in number; spicules 20-23 μm long	<i>L. sachalinensis</i>
15.	Males with 5 (4-6) tubular and 6-7 alveolar supplements reaching pharyngeal region; alveolar supplements with distinct sclerotized tube	<i>L. danicus</i>
–	Males with 4 tubular and 2-3 alveolar supplements reaching midbody; alveolar supplements without sclerotized tube	<i>L. mixtus</i>
–	Males with 4 tubular and 7-10 alveolar supplements reaching anterior part of intestine; alveolar supplements without sclerotized tube	<i>L. tertius</i>
16.	One tubular supplement in the pharyngeal region and several precloacal	<i>L. luridus</i>
–	Tubular supplements in a single continuous row	17
17.	Tubular supplements with distal oval disk bearing minute cuticular projections	18
–	Tubular supplements without distal disc, but may have projections or hooks	19
18.	Male with 12 tubular supplements	<i>L. scotlandicus</i>
–	Male with 3 tubular supplements	<i>L. antarcticus</i>
19.	Tubular supplements sickle-shaped	<i>L. macer</i>
–	Tubular supplements straight or slightly curved, never sickle-shaped	20
20.	Spicules long, equal to 4 cloacal body diameters in length	<i>L. tchesunovi</i>
–	Spicules relatively short, less than 3 cloacal body diameters in length	21
21.	Males with single tubular supplement	<i>L. ditlevseni</i>
–	Males with 2 tubular supplements	22
–	Males with 3 tubular supplements	23
–	Males with 4 or more tubular supplements	27
22.	Body large, over 1 mm long; cephalic sensilla setiform, 5 μm long; amphid close to anterior end, on unstriated cephalic capsule; caudal glands present	<i>L. nobilis</i>
–	Body small, under 0.5 mm long; cephalic sensilla papilliform; amphid further behind; caudal glands absent	<i>L. acicula</i>
23.	Cephalic sensilla papilliform	<i>L. puccinelliae</i>
–	Cephalic sensilla setiform	24
24.	Spicules 17-18 μm long; tail long, $c'=8.5-13$	<i>L. tritubulatus</i>
–	Spicules longer than 20 μm ; tail shorter, $c'=4.8-7.5$	25
25.	Spicules 29-30 μm long	<i>L. kerguelenensis</i>
–	Spicules 20-24 μm long	26
26.	Antermost body seta just posterior to amphid	<i>L. gabinoi</i>
–	Antermost body seta at stoma base	<i>L. vinnulus</i>

27.	Distance between two anteriormost supplements is noticeably shorter than between other supplements in the row	<i>L. vipriensis</i>	
–	Distance between two anteriormost supplements is equal or longer than between other supplements in the row		28
28.	Lateral field expands into bursa-like structure along the anal/cloacal region	<i>L. octavus</i>	
–	Bursa-like structure absent		29
29.	Tubular supplements in male with broad spearhead-like tip, females viviparous	<i>L. alekseevi</i>	
–	Tubular supplements in male without broad spearhead-like tip, females oviparous		30
30.	Outer labial sensilla distinct, papilliform; labial region offset from body contour		31
–	Outer labial sensilla indistinct; labial region continuous with body contour		33
31.	Body less than 0.6 mm long, 6-8 tubular supplements in male	<i>L. alatus</i>	
–	Body more than 0.6 μm long, usually 4-5 tubular supplements in male		32
32.	Spicules 39-46 μm long, tail short, c' less than 4.0	<i>L. sextus</i>	
–	Spicules 31-34 μm long, tail long, c' more than 4.5	<i>L. septimus</i>	
33.	Body long and slender (L=0.86-1.71 mm, a=45-105); tail long, c'>6		34
–	Body shorter and plumper (L=0.52-0.94 mm, a=19-46); tail shorter, c'=<6		35
34.	Male with 16 tubular supplements; spicules 24 μm long	<i>L. setiger</i>	
–	Male with 7-12 tubular supplements; spicules 17-19 μm long	<i>L. ampullaceus</i>	
35.	Male with 9 tubular supplements	<i>L. meyer-reili</i>	
–	Male with 4-7 tubular supplements		36
36.	Spicules asymmetrical, 39-54 μm long	<i>L. limicolus</i>	
–	Spicules symmetrical, 17-29 μm long		37
37.	Tubular supplements with bifid tips, usually 4 tubular supplements		38
–	Tubular supplements with dentate tips, usually 5-7 tubular supplements, (rarely 4 or 8)		39
38.	Body 0.76-0.84 mm long; tail longer (c'=6.0-7.2); spicules 28 μm long	<i>L. gerlachi</i>	
–	Body 0.44-0.52 mm long; tail longer (c'=3.0-3.7); spicules 23 μm long	<i>L. praeclarus</i>	
39.	Pars refringens vaginae present		40
–	Pars refringens vaginae absent		41
40.	Body 0.76-0.97 mm long; usually 7 tubular supplements; vagina midventral	<i>L. septempapillatus</i>	
–	Body 0.40-0.63 mm long; usually 4-5 tubular supplements; vagina right-subventral	<i>L. nonus</i>	

41.	Spicules knife-like, weakly curved (almost straight), with conoid calamus, 20-24 μm long	<i>L. elegans</i>
–	Spicules distinctly curved (arcuate), with uniformly cylindrical calamus, 24-29 μm long	<i>L. fluviatilis</i>
42.	Both males and females with tubular and alveolar supplements	<i>L. maximus</i>
–	Both males and females with tubular supplements only	43
43.	Tubular supplements in females located in front of anus and at anterior part of intestine	44
–	Tubular supplements in both females and males located only in front of anus/cloaca	50
44.	Tubular supplements in males in two groups, 4-6 in the anterior group and 4-5 in the posterior group, reaching cardia	<i>L. quintus</i>
–	Tubular supplements in males in two groups, 1-3 in the pharyngeal region and several precloacal	45
45.	Supplements in the precloacal group equidistantly arranged	46
–	Supplements in the precloacal group separated, with the anteriormost supplement located at double or more distance from the second anteriormost supplement	48
46.	Females with 5 tubular supplements (four along anterior part of intestine and one in front of anus)	<i>L. sergeevae</i>
–	Females with 2-3 tubular supplements (1-2-two along pharynx and anterior part of intestine and one in front of anus)	47
47.	Body 1.4-2.0 mm long; males with 2-3 tubular supplements in pharyngeal region and 6-8 tubular supplements in precloacal group	<i>L. pellucidus</i>
–	Body 0.4-0.5 mm long; males with 1 tubular supplement in pharyngeal region and 4-5 tubular supplements in precloacal group	<i>L. harpaga</i>
48.	Spicules longer than 25 μm (26-34 μm)	<i>L. rivalis</i>
–	Spicules shorter than 20 μm (16-18 μm)	49
49.	Body 0.63-0.74 mm long	<i>L. lorenzeni</i>
–	Body 0.50-0.57 mm long	<i>L. cangionensis</i>
50.	Precloacal supplements separated, with the anteriormost supplement located at double or more distance from the second anteriormost supplement	<i>L. paravenustus</i>
–	Supplements in the precloacal group equidistantly arranged	51
51.	Males with 10 tubular supplements; body 1.8-2.1 mm long	<i>L. affinis</i>
–	Males with 3-5 tubular supplements; body 0.5-0.8 mm long	52
52.	Males with 5 tubular supplements; tail relatively short ($c'=4$), uniformly conoid	<i>L. membranatus</i>
–	Males with 3-4 tubular supplements; tail longer ($c'=4.5-6.5$), conoid anteriorly and cylindrical posteriorly	53

53. Spicules 15 μm long; cephalic setae 1.5 μm long *L. venustus*
 – Spicules 23-35 μm long; cephalic setae 3.0-4.5 μm long *L. paravenustus*
-

Genus *Anomonema* Hopper, 1963

Classification based on: Holovachov O. (2016). *Anomonema* Hopper, 1963. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=153416>

1. Cardia less than 0.5 corresponding body diameters long *A. haplostoma*
 – Cardia more than 2 corresponding body diameters long *A. deconincki*
-

Genus *Antomicron* Cobb, 1920

Classification based on: Holovachov O. (2016). *Antomicron* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2400>

1. Females 2
 – Males 10
2. Males with both alveolar and tubular supplements 3
 – Males with only tubular supplements 7
3. Number of alveolar supplements is more than 25 (29-36) 4
 – Number of alveolar supplements is less than 20 (8-14) 5
4. Males with 5-9 tubular supplements *A. intermedius*
 – Males with 3 tubular supplements *A. alveolatum*
5. Males with 5 tubular supplements *A. profundum*
 – Males with 2-3 tubular supplements 6
6. Males with 3 tubular supplements; cephalic sensilla papilliform *A. pratense*
 – Males with 2 tubular supplements; cephalic sensilla setiform *A. lorenzeni*
7. Males with 15 tubular supplements;
 body length exceeds 1.3 mm *A. quindecimpapillatus*
 – Number of tubular supplements is 10 or less; body length is less than 1.1 mm 8
8. Males with 10 tubular supplements; amphid loop-shaped *A. profundum*
 – Males with 4-8 tubular supplements; amphid doughnut-shaped 9
9. Males with 6-8 tubular supplements, amphid oval in shape *A. pellucidum*
 – Males with 4 tubular supplements, amphid elongate in shape *A. elegans*

10.	Amphid loop-shaped; body shorter than 0.7 mm	<i>A. lorenzeni</i>
–	Amphid doughnut-shaped; body longer than 0.7 mm	11
11.	Central amphidial elevation oval, amphid rounded	12
–	Central amphidial elevation elongate; amphid elongate	13
12.	Body shorter than 1 mm; cephalic setae 2-3 μm long	<i>A. intermedius</i>
–	Body longer than 1 mm; cephalic setae 6 μm long	<i>A. pellucidum</i>
13.	Body shorter than 1.1 mm; plumper (a = 26-36) and with shorter tail (c' = 6.4)	<i>A. elegans</i>
–	Body longer than 1.3 mm; slenderer (a = 50) and with longer tail (c' = 8.4)	<i>A. quindecimpapillatus</i>

Genus *Leptolaimoides* Vitiello, 1971

Classification based on: Holovachov O. (2016). *Leptolaimoides* Vitiello, 1971. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2406>

1.	Males without tubular supplements	2
–	Males with tubular supplements	6
2.	Lateral field areolated (see diagnosis for explanation)	<i>L. haploopsis</i>
–	Lateral field simple (single band of smooth cuticle)	3
3.	Amphid over 20 μm long	4
–	Amphid less than 15 μm long	5
4.	Tail over 120 μm long, c = 2.7–3.5, c' = 13.4–22.1	<i>L. filicaudatus</i>
–	Tail less than 110 μm long, c = 5.4–6.6, c' = 9.5–13.6	<i>L. tropicus</i>
5.	Body 0.6 mm long, spicules 26 μm long	<i>L. propinquus</i>
–	Body 0.3–0.4 mm long, spicules 13 μm long	<i>L. thermastris</i>
6.	Males with 2–3 tubular supplements	7
–	Males with 4–6 tubular supplements	10
7.	Lateral field simple	8
–	Lateral field areolated	9
8.	Body 0.5–0.8 mm long, amphid 21–32 μm long	<i>L. tubulosus</i>
–	Body 0.3–0.5 mm long, amphid 13–18 μm long	<i>L. asiaticus</i>
9.	Body 0.7–0.9 mm long, amphid 15–17 μm long, three tubular supplements	<i>L. leptomicron</i>
–	Body 0.3–0.5 mm long, amphid 5–7 μm long,	

- two tubular supplements *L. cangionensis*
10. Body 0.2–0.4 mm long, tail clavate, relatively short ($c' = 6.5–6.7$) *L. clavicaudatus*
 – Body 0.5–0.7 mm long, tail elongate-conoid to subcylindrical,
 relatively long ($c' = 7–11$) 11
11. Amphid 19–24 μm long *L. punctatus*
 – Amphid 11–16 μm long *L. hexatubulosus*
-

Genus *Leptoplectonema* Coomans & Raski, 1991

Classification based on: Holovachov O. (2016). *Leptoplectonema* Coomans & Raski, 1991. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227511>

1. Body 420-470 μm long; tail relatively short ($c'=4.2-4.6$);
 cardia 5-7 m long *L. lissum*
 – Body 600-670 μm long; tail relatively long ($c'=9.9-13.4$);
 cardia 19-25 m long *L. fuegoense*
-

Genus *Manunema* Gerlach, 1957

Classification based on: Holovachov O. (2016). *Manunema* Gerlach, 1957. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2410>

1. Tubular supplements absent *M. annulata*
 – Tubular supplements present 2
2. Single tubular supplement *M. kuwaitiensis*
 – Two or three tubular supplements 3
3. Three tubular supplements; their tips with comb-like structures *M. pectenophora*
 – Two tubular supplements; comb-like structures absent 4
4. Tubular supplements paddle shaped, with tips transversely ridged *M. kithara*
 – Tubular supplements simple, without additional ornamentation *M. proboscidis*
-

Genus *Paraplectonema* Strand, 1934

Classification based on: Holovachov O. (2016). *Paraplectonema* Strand, 1934. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227260>

1. Excretory pore at labial region *P. loofi*
 – Excretory pore absent *P. americanum*
 – Excretory pore posterior to nerve ring level 2
 2. Predominantly parthenogenetic species; when present, males have
 21-22 μm long spicules *P. pedunculatum*
 – Bisexual species; spicules 29-38 μm long 3
 3. Nine tubular supplements *P. canadianum*
 – 10-13 tubular supplements 4
 4. Spicules 38 μm long *P. primitivum*
 – Spicules 29-35 μm long *P. multitubiferum* and *P. vietnamicum*
-

Genus *Rhadinema* Cobb, 1920

Classification based on: Holovachov O. (2015). *Rhadinema* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2411>

1. Stoma big and spacious; labial region 10-13 μm wide;
 vulva located posterior to midbody (V=59%) *R. flexile*
 – Stoma small and narrow; labial region 5-8 μm wide;
 vulva located at midbody (V=47-50%) *R. timmi*
-

Genus *Cricolaimus* Southern, 1914

Classification based on: Holovachov O. (2015). *Cricolaimus* Southern, 1914. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2401>

Key not available.

Genus *Lavareda* da Fonseca-Genevois, Smol & Bezerra, 2011

Classification based on: Holovachov O. (2016). *Lavareda* da Fonseca-Genevois, Smol & Bezerra, 2011. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=868969>

1. Supplements arranged in continuous row *L. decraemerae*
 – Supplements arranged in two separate rows
 with distinct gap in between *L. coronatus*
-

Genus *Deontolaimus* de Man, 1880

Classification based on: Holovachov O. (2016). *Deontolaimus* de Man, 1880. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2394>

1.	Anterior ovary reduced, posterior ovary functional	<i>D. monhystera</i>
–	Both ovaries equally developed, functional (if known)	2
2.	Males with caudal alae at level with cloaca	<i>D. prytherchi</i>
–	Males without caudal alae at level with cloaca	3
3.	Cephalic setae located anterior to amphid	<i>D. pontollittoralis</i>
–	Cephalic setae located at level with or posterior to amphid	4
4.	Excretory pore located at level with onchiostyle or anterior-most part of intestine	5
–	Excretory pore located at level with nerve ring	6
5.	Body 1.2–1.7 mm long, excretory pore located 9–17 μ m posterior to cephalic setae bases	<i>D. catalinae</i>
–	Body 0.7–0.8 mm long, excretory pore located at level with cephalic setae bases	<i>D. parvus</i>
6.	Amphid multispiral	7
–	Amphid unispiral	9
7.	Cephalic setae located at level with amphid base; tail very long ($c' \approx 9-12$)	<i>D. praedator</i>
–	Cephalic setae located far posterior to amphid base; tail short ($c' \approx 2.5-5.5$)	8
8.	Cephalic setae short (6.5–8.5 μ m); tail longer ($c' = 3.3-5.4$)	<i>D. uniformis</i>
–	Cephalic setae long (18 μ m); tail shorter ($c' = 2.5-3.4$)	<i>D. exilis</i>
9.	Cephalic setae located far posterior to amphid base	10
–	Cephalic setae located at level with amphid base	11
10.	Spicules 24–30 μ m long	<i>D. longicauda</i>
–	Spicules 20–21 μ m long	<i>D. trituberculatus</i>
11.	Body over 2.5 mm long (2.7–3.2 mm); spicules over 60 μ m long (63–65 μ m)	<i>D. guillei</i>
–	Body less than 2.5 mm long (0.5–2.4 mm); spicules less than 60 μ m long (20–59 μ m)	12
12.	Cephalic setae relatively long ($\approx 5-8 \mu$ m)	13
–	Cephalic setae relatively short ($\approx 1-2 \mu$ m)	14
13.	Tail relatively long ($c' = 6$), spinneret broad conoid, not offset from tail	<i>D. cylindricaudatus</i>

- Tail relatively short ($c' = 3.8\text{--}4.6$), spinneret narrow and curved dorsad, sharply offset from tail *D. lorenzeni*
 - 14. Alveolar supplements extend along entire body almost to cloaca *D. paraguillei*
 - Alveolar supplements present in pharyngeal region only 15
 - 15. Body over 1.5 mm long (1.6–2.4 mm);
spicules over 50 μm long (53–59 μm) *D. tardus*
 - Body less than 1.5 mm long (0.5–1.1 mm);
spicules less than 40 μm long (20–35 μm) 16
 - 16. Alveolar supplements very distinct along the pharyngeal region *D. papillatus*
 - Alveolar supplements small and difficult to discern *D. timmi*
-

Genus *Anguinoides* Chitwood, 1936

Classification based on: Holovachov O. (2016). *Anguinoides* Chitwood, 1936. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227265>

Key not available.

Genus *Dagda* Southern 1914

Classification based on: Holovachov O. (2016). *Dagda* Southern, 1914. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2403>

- 1. Both tubular and alveolar supplements present; cuticle punctated *D. asymmetrica*
 - Alveolar supplements absent; cuticle without punctations *D. bipapillata*
-

Genus *Diodontolaimus* Southern, 1914

Classification based on: Holovachov O. (2016). *Diodontolaimus* Southern, 1914. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=2404>

- 1. Gubernaculum with caudal apophysis; spinneret with equally long dorsal and ventral sides *D. sabulosus*
- Gubernaculum with broad dorsal apophysis; ventral side of the spinneret is longer than dorsal *D. karachiensis*
- Gubernaculum with short dorsal apophysis; dorsal side of the spinneret is longer than ventral *D. parasabulosus*

Genus *Ionema* Cobb, 1920

Classification based on: Holovachov O. (2016). *Ionema* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2395>

Key not available.

Genus *Listia* Blome, 1982

Classification based on: Holovachov O. (2016). *Listia* Blome, 1982. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=227180>

1. Body 1.3 mm long; spicula 40 µm long; ten tubular supplements; alveolar supplements absent *L. granulifera*
 - Body 0.6-1.0 mm long; spicula 22-26 µm long; two-eight tubular supplements; alveolar supplements present 2
 2. Body 0.8-1.0 mm long; eight tubular and 55 alveolar supplements *L. variopapillata*
 - Body 0.6-0.8 mm long; two tubular and 12-19 alveolar supplements *L. capensis*
-

Genus *Neocamacolaimus* Holovachov & Boström, 2014

Classification based on: Holovachov O. (2016). *Neocamacolaimus* Holovachov & Boström, 2014. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=834494>

Key not available.

Genus *Onchiolistia* Blome, 2002

Classification based on: Holovachov O. (2016). *Onchiolistia* Blome, 2002. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=391005>

1. Alveolar supplements 93 in number *O. multipapillata*
- Alveolar supplements less than 50 in numbers 2
2. Stoma with solid dorsal onchium; spicula 32-42 µm long, with narrow cylindrical shaft; spinneret straight *O. tubifera*
- Stoma with hollow dorsal onchium; spicula 24 µm long, with wide conoid shaft;

spinneret curved dorsad *O. africana*

Genus *Procamacolaimus* Gerlach, 1954

Classification based on: Holovachov O. (2016). *Procamacolaimus* Gerlach, 1954. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2398>

1. Stoma spear-like with internal hollow canal; spicula 65-86 μm long *P. dorylaimus*
– Stoma with solid dorsal onchium or with thickened dorsal wall;
spicula less than 51 μm long 2
 2. Body 0.86 mm long; spicula 27 μm long *P. dolichostylum*
– Body longer than 1 mm; spicula longer than 30 μm 3
 3. Stoma with thickened dorsal wall;
17 tubular supplements; spicula 41 μm long *P. cosmius*
– Stoma with dorsal onchium 4
 4. Tubular supplements 5-7 in number *P. profundus*
– Tubular supplements 10-24 in number 5
 6. Tail 3.0 anal body diameters long *P. phinneyi*
– Tail 1.0-1.7 anal body diameters long *P. tenuispiculum*
– Tail 3.6-4.9 anal body diameters long *P. acer*
-

Genus *Onchium* Cobb, 1920

Classification based on: Holovachov O. (2016). *Onchium* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=2397>

1. Ocelli large and well developed, pigment body distinctly recognizable 2
– Ocelli indistinct or absent 4
2. Body short, under 1 mm in length; onchiostyle 6 μm long;
spicules 23 μm long *O. minutum*
– Body long, over 1.4 mm and up to 3 mm in length; onchiostyle 10–20 μm long;
spicules over 30 μm long 3
3. Excretory pore located at level of nerve ring; cuticle encircling
the labial region not different from the rest of the body *O. ocellatum*
– Excretory pore located at the level of onchiostyle and ocelli; cuticle encircling
the labial region strongly thickened, forming a "cephalic capsule" *O. robustum*
– Excretory pore located at base of lips; cuticle encircling the labial region
not different from the rest of the body *O. parocellatum*

- 4. Onchiostyle with bifurcated basal part, 27–34 μm long in females, 12–13 μm long in males; spicules 17–24 μm long *O. metocellatum*
 - Onchiostyle cylindrical, similar in length in females and males (7–11 μm); spicules 44–65 μm long *O. longispiculum*
-

Genus *Smithsoninema* Hope & Tchesunov, 1999

Classification based on: Holovachov O. (2016). *Smithsoninema* Hope & Tchesunov, 1999. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=868968>

Key not available.

Genus *Loveninema* Holovachov & Boström, 2012

Classification based on: Holovachov O. & Vanaverbeke J. (2016). *Loveninema* Holovachov & Boström, 2012. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=815645>

- 1. Labial projection short; tubular supplements preset; alveolar supplements absent; gubernaculum absent *L. tubulosa*
 - Labial projection long; tubular supplements absent; alveolar supplements present; gubernaculum present *L. unicornis*
-

Genus *Alaimella* Cobb, 1920

Classification based on: Holovachov O. (2016). *Alaimella* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2399>

- 1. Cuticular rings show clear longitudinal striation 2
 - Cuticular rings are smooth or with weak longitudinal striation *A. truncata*
 - 2. Body 2 mm or longer; cephalic setae twice as long as the labial region diameter *A. macramphis*
 - Body around 1.5 mm long; cephalic setae less than two labial region diameters in length *A. cincta*
-

Genus *Stephanolaimus* Ditlevsen, 1918

Classification based on: Holovachov O. & Vanaverbeke J. (2016). *Stephanolaimus* Ditlevsen,

1918. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=2408>

1. Males with more than 30 tubular supplements *S. elegans*
– Males with 9-10 tubular supplements 2
 2. Spicules 52 μm long *S. graciosus*
– Spicules 38 μm long *S. costatus*
-

Genus *Setostephanolaimus* Tchesunov, 1994

Classification based on: Holovachov O. (2016). *Setostephanolaimus* Tchesunov, 1994. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=868898>

1. Body longer than 2.5 mm, males with more than 20 tubular supplements *S. gandavensis*
– Body shorter than 2.5 mm, males with less than 20 tubular supplements 2
 2. Subcephalic seta absent 3
– Subcephalic seta present 5
 3. Males with 6-7 tubular supplements *S. paraflevensis*
– Males with 12-15 tubular supplements 4
 4. Spicules 52-85 μm long, gubernaculum without apophysis *S. longispiculum*
– Spicules 33 μm long, gubernaculum with long dorsocaudal apophysis *S. flevensis*
 5. Spicules 54-64 μm long *S. tchesunovi*
– Spicules less than 40 μm long 6
 6. Spicules 17-20 μm long *S. spartinae*
– Spicules more than 30 μm long 7
 7. Amphid aperture round, gubernaculum apophysis long *S. bicoronatus*
– Amphid aperture slit-like, gubernaculum apophysis short *S. orientalis*
-

Genus *Chronogaster* Cobb, 1913

Classification based on: Holovachov O. (2016). *Chronogaster* Cobb, 1913. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=227267>

Key not available.

Genus *Keralanema* Siddiqi, 2003

Classification based on: Holovachov O. (2016). *Keralanema* Siddiqi, 2003. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=869916>

Key not available.

Genus *Kischkenema* Siddiqi, Winiszewska & Malewski, 2013

Classification based on: Holovachov O. (2016). *Kischkenema* Siddiqi, Winiszewska & Malewski, 2013. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=869908>

1. Postvulval uterine sac absent *K. boettgeri*
– Postvulval uterine sac present 2
 2. Tail terminus with straight spinneret *K. europense*
– Tail terminus with curved spinneret *K. chilense*
-

Genus *Rugoster* Siddiqi, Handoo & Siddiqi, 2013

Classification based on: Holovachov O. (2016). *Rugoster* Siddiqi, Handoo & Siddiqi, 2013. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=869915>

1. Between 18 and 22 longitudinal ridges 2
– More than 22 longitudinal ridges 5
2. Body 0.9 mm or longer; cephalic setae 4.5-6.0 μm long 3
– Body shorter than 0.9 mm; cephalic setae 3.0-4.5 μm long 4
3. Stoma 33-35 μm long (measured to pharyngeal tubes) *R. magnifica*
– Stoma 28-29 μm long *R. regalia*
4. Tail 82-85 μm long; $c' = 6-7$ *R. orientalis*
– Tail 98-130 μm long; $c' = 8-11$ *R. virgata*
5. 40 longitudinal ridges *R. tessellata*
– Less than 38 longitudinal ridges 6
6. Body shorter than 660 μm ; tail shorter than 86 μm *R. recisa*
– Body longer than 660 μm ; tail longer than 90 μm 7
7. Stoma 29-32 μm long; vulva-anus distance 210-240 μm *R. neomagnifica*

- Stoma 34-37 μm long; vulva-anus distance 265-290 μm *R. colbrani*
-

Genus *Caribplectus* Andrásy, 1973

Classification based on: Holovachov O. (2016). *Caribplectus* Andrásy, 1973. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227257>

- 1. Spicules 38-41 μm long *C. supplementatus*
 - Spicules 27-33 μm long *C. magdalенаe*
-

Genus *Cynura* Cobb, 1920

Classification based on: Holovachov O. (2016). *Cynura* Cobb, 1920. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=2402>

- 1. Antermost supplement with echinulate tip 2
 - Antermost supplement with blunt tip 3
 - 2. Cephalic setae 18-24 μm long *C. cerambus*
 - Cephalic setae 13 μm long *C. juliani*
 - 3. Labial region offset from the rest of the body *C. papillata*
 - Labial region continuous with the body contour 4
 - 4. Tail relatively short, $c' = 1.5-1.9$ *C. uniformis*
 - Tail longer, $c' = 2.2-2.7$ *C. klunderi*
-

Genus *Anaplectus* De Coninck & Schuurmans Stekhoven, 1933

Classification based on: Holovachov O. (2016). *Anaplectus* Coninck & Stekhoven, 1933. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227268>

- 1. Gymnostom in shape of a single chamber 3
- Gymnostom in shape of a double chamber 2
- 2. Vulva in an elongated depression, tail elongated, $c'=3.3$ *A. octo*
- Vulva flush with body contour, tail plump, $c'=2.0-2.5$ *A. eurycerus*
- 3. Cuticularized spinneret present 5
- Cuticularized spinneret absent 4

4.	Lip region set off; amphid located at level with stegostom	<i>A. atubulatus</i>
–	Lip region not set off; amphid at level with gymnostom	<i>A. varicaudatus</i>
5.	Dorsal and ventral hypodermal glands and pores present anteriorly.....	<i>A. porosus</i>
–	Dorsal and ventral hypodermal glands and pores absent	6
6.	Manubrium not exceeding width of shaft	7
–	Manubrium distinctly exceeding width of shaft	10
7.	Lip region set off; male usually with 2-3 tubular supplements	8
–	Lip region not set off; male usually with 4 tubular supplements	9
8.	Body 0.8-1.1 mm long; b=4.9-5.2	<i>A. tortus</i>
–	Body 2.0-2.3 mm long; b=8.0-9.7	<i>A. magnus</i>
9.	Posteriormost tubular supplement about ½ of spicule length	<i>A. similis</i>
–	Posteriormost tubular supplement about equal to spicule length ...	<i>A. grandepapillatus</i>
10.	Preloacal subventral papilliform sensilla present	11
–	Preloacal subventral papilliform sensilla absent	12
11.	Vulva almost continuous with body contour	<i>A. granulosus</i>
–	Vulva in longitudinally elongated 5-8 µm deep depression	<i>A. brzeskii</i>
12.	Posteriormost tubular supplement equal to ½ of spicule length	<i>A. subgranulosus</i>
–	Posteriormost tubular supplement longer than ½ of spicule length	<i>A. parasimilis</i>

Genus *Arctiopectus* Andrassy, 2003

Classification based on: Holovachov O. (2016). *Arctiopectus* Andrassy, 2003. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=871475>

Key not available.

Genus *Periopectus* Sanwal in Gerlach & Riemann, 1973

Classification based on: Holovachov O. (2016). *Periopectus* Sanwal in Gerlach & Riemann, 1973. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227270>

1.	Body 1.2-1.4 mm long	<i>P. labiosus</i>
–	Body 0.9-1.2 mm long	<i>P. secundus</i>

Genus *Pakira* Yeates, 1967

Classification based on: Holovachov O. (2015). *Pakira* Yeates, 1967. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227258>

Key not available.

Genus *Plectus* Bastian, 1865

Classification based on: Holovachov O. (2016). *Plectus* Bastian, 1865. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227271>

Key not available.

Genus *Hemiplectus* Zell, 1991

Classification based on: Holovachov O. (2015). *Hemiplectus* Zell, 1991. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=851681>

Key not available.

Genus *Ereptonema* Anderson, 1966

Classification based on: Holovachov O. (2016). *Ereptonema* Anderson, 1966. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227273>

1. Cervical expansions with 10-12 striae; lateral rims smooth; tail with three setae *E. andersoni*
 - Cervical expansions with 4-6 striae; lateral rims fimbriate; tail with four setae 4

 2. Cornua with two tines each, “claw-like” *E. cheliferum*
 - Cornua with three tines each; four flabella *E. arcticum*
-

Genus *Neotylocephalus* Ali, Farooqui & Tejpal, 1969

Classification based on: Holovachov O. (2016). *Neotylocephalus* Ali, Farooqui & Tejpal, 1969. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine*

Nematodes. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=868973>

1. Pharyngeal region without setae; three caudal setae *N. haryanensis*
– Pharyngeal region with four setae; four to six caudal setae 2
 2. Flabella shorter than cornua; middle tine of cornua longer
than the other two *N. annonae*
– Flabella longer than cornua; outermost tine of cornua longer
than the other two *N. inflatus*
-

Genus *Wilsonema* Cobb, 1913

Classification based on: Holovachov O. (2016). *Wilsonema* Cobb, 1913. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227277>

- 1 Tail long (c=5-6), vulva pre-equatorial (V=44-46%) *W. longicaudatum*
– Tail shorter (c=7-18), vulva equatorial (V=47-57%) 2
 - 2 Pharyngeal region with ten setae; tail with four setae *W. bangaloreiensis*
– Pharyngeal region with six setae; five caudal setae,
rectum short (7-14 µm, R/ABD=0.8-1.4) *W. otophorum*
– Pharyngeal region with four setae; four caudal setae,
rectum long (18-28 µm, R/ABD=2.2-4.6) *W. schuurmansstekhoveni*
-

Genus *Tylocephalus* Crossman, 1933

Classification based on: Holovachov O. (2015). *Tylocephalus* Crossman, 1933. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227275>

1. Median ridge undeveloped, absent 2
– Median ridge present 4
2. Cervical expansions extending posterior to the level
of "subcephalic" setae *T. longicornis*
– Cervical expansions extending to near the level of "subcephalic" setae 3
3. Body length >400 µm *T. cornutus*
– Body length <400 µm *T. primitivus*
4. Median ridge without flaps and without taps ("Zapfen") 5
– Median ridge with lateral flaps, without taps ("Zapfen") 7
– Median ridge without flaps, with taps ("Zapfen") 8
5. Cornua long (12-14.5 µm); cervical expansions long (17-29 µm),

- extending posterior to the level of "subcephalic" setae *T. nimius*
 - Cornua short (4.5-7 μm); cervical expansions short (11-17 μm),
extending to near the level of "subcephalic" setae 6
 - 6. Cornua conoid, convexly arcuate, without basal flap *T. becki*
 - Cornua flattened, with basal flap *T. cephalatus*
 - 7. Six caudal setae; "spur" at 13-15 μm from tail terminus *T. palmatus*
 - Five caudal setae; "spur" at 4-7 μm from tail terminus *T. auriculatus*
 - 8. Cervical expansions narrow; body length 500 μm *T. annulatus*
 - Cervical expansions oval; body length 400-500 μm *T. andinus*
 - Cervical expansions wide, rounded; body length 350-450 μm *T. laticollis*
-

Genus *Yeatesinia* Holovachov & Boström, 2014

Classification based on: Holovachov O. (2016). *Yeatesinia* Holovachov & Boström, 2014. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=868896>

Key not available.

Genus *Metateratocephalus* Eroshenko, 1973

Classification based on: Holovachov O. (2016). *Metateratocephalus* Eroshenko, 1973. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://www.nemys.ugent.be/aphia.php?p=taxdetails&id=868981>

- 1. Body arcuate dorsad upon heat fixation;
rectum 2.0-2.5 anal body diameters long *M. bialowieziensis*
 - Body straight upon heat fixation, only tail can be curved dorsad;
rectum 1.0-1.6 anal body diameters long 2
 - 2. Tail long, equal to 7-8 anal body diameters *M. gracilicaudatus*
 - Tail less than 4 anal body diameters in length 3
 - 3. Amphids 3 LRD posterior to anterior end *M. deconincki*
 - Amphids 1.5-2 LRD posterior to anterior end 4
 - 4. Tail conoid; lateral cuticular ornamentation indistinct *M. typicus*
 - Tail elongate conoid, lateral cuticular ornamentation prominent *M. crassidens*
-

Genus *Euteratocephalus* Andrassy, 1958

Classification based on: Holovachov O. (2016). *Euteratocephalus* Andrassy, 1958. In: Guilini K., et al. (2016). *NeMys: World Database of Free-Living Marine Nematodes*. Accessed at <http://nemys.ugent.be/aphia.php?p=taxdetails&id=227280>

1. Lateral field demarcated by few rows of large modified punctations
or not demarcated at all *E. spiraloides*
– Lateral field demarcated by smooth area, bordered by large modified punctations 2

 2. Smooth area comprising about 60-95% of total body length;
width of smooth area 2.5-4 μm *E. punctatus*
– Smooth area comprising about 10-40% of total body length;
width of smooth area 1-2.5 μm *E. palustris*
-

